



Norton SystemWorks^{2.0}TM For Macintosh®

User's Guide

Norton SystemWorks™ for Macintosh® User's Guide

The software described in this book is furnished under a license agreement and may be used only in accordance with the terms of the agreement.

Documentation version 2.0

PN: 07-30-00477

Copyright Notice

Copyright © 2002 Symantec Corporation

All Rights Reserved.

Any technical documentation that is made available by Symantec Corporation is the copyrighted work of Symantec Corporation and is owned by Symantec Corporation.

NO WARRANTY. The technical documentation is being delivered to you AS-IS and Symantec Corporation makes no warranty as to its accuracy or use. Any use of the technical documentation or the information contained therein is at the risk of the user. Documentation may include technical or other inaccuracies or typographical errors. Symantec reserves the right to make changes without prior notice.

No part of this publication may be copied without the express written permission of Symantec Corporation, 20330 Stevens Creek Blvd., Cupertino, CA 95014.

Trademarks

Norton SystemWorks, Norton Utilities, Norton AntiVirus, LiveUpdate, Norton Disk Doctor, Speed Disk, UnErase, Norton FileSaver, Volume Recover, System Info, Wipe Info, Symantec AntiVirus for Macintosh, DiskLight, Fast Find, Norton Disk Editor, Speed Disk Profile Editor, and Norton Tools are trademarks of Symantec Corporation.

Portions of this software are Copyright © 1990-2001 Aladdin Systems, Inc.

Macintosh, Mac OS, Macintosh G4, iMac, iBook, PowerPC, Macintosh G3, and Finder are trademarks of Apple Computer. Other brands and product names mentioned in this manual may be trademarks or registered trademarks of their respective companies and are hereby acknowledged.

Other product names mentioned in this manual may be trademarks or registered trademarks of their respective companies and are hereby acknowledged.

Printed in the United States of America.

10 9 8 7 6 5 4 3 2 1

SYMANTEC LICENSE AND WARRANTY

IMPORTANT: PLEASE READ THE TERMS AND CONDITIONS OF THIS LICENSE AGREEMENT CAREFULLY BEFORE USING THE SOFTWARE. SYMANTEC CORPORATION AND/OR ITS SUBSIDIARIES ("SYMANTEC") IS WILLING TO LICENSE THE SOFTWARE TO YOU AS THE INDIVIDUAL, THE COMPANY, OR THE LEGAL ENTITY THAT WILL BE UTILIZING THE SOFTWARE (REFERENCED BELOW AS "YOU OR YOUR") ONLY ON THE CONDITION THAT YOU ACCEPT ALL OF THE TERMS OF THIS LICENSE AGREEMENT. THIS IS A LEGAL AND ENFORCEABLE CONTRACT BETWEEN YOU AND SYMANTEC. BY OPENING THIS PACKAGE, BREAKING THE SEAL, CLICKING ON THE "AGREE" OR "YES" BUTTON OR OTHERWISE INDICATING ASSENT ELECTRONICALLY, OR LOADING THE SOFTWARE, YOU AGREE TO THE TERMS AND CONDITIONS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THESE TERMS AND CONDITIONS, CLICK ON THE "I DO NOT AGREE", "NO" BUTTON, OR OTHERWISE INDICATE REFUSAL, MAKE NO FURTHER USE OF THE SOFTWARE, AND RETURN THE FULL PRODUCT WITH PROOF OF PURCHASE TO THE DEALER FROM WHOM IT WAS ACQUIRED WITHIN SIXTY (60) DAYS OF PURCHASE, AND YOUR MONEY WILL BE REFUNDED.

1. LICENSE:

The software which accompanies this license (collectively the "Software") is the property of Symantec or its licensors and is protected by copyright law. While Symantec continues to own the Software, you will have certain rights to use the Software after your acceptance of this license. This license governs any releases, revisions, or enhancements to the Software that Symantec may furnish to you. Except as may be modified by a Symantec license certificate, license coupon, or license key (each a "License Module") which accompanies, precedes, or follows this license, your rights and obligations with respect to the use of this Software are as follows:

YOU MAY:

- A. use one copy of the Software on a single computer. If a License Module accompanies, precedes, or follows this license, you may make that number of copies of the Software licensed to you by Symantec as provided in your License Module. Your License Module shall constitute proof of your right to make such copies.
- B. make one copy of the Software for archival purposes, or copy the Software onto the hard disk of your computer and retain the original for archival purposes;
- C. use the Software on a network, provided that you have a licensed copy of the Software for each computer that can access the Software over that network; and
- D. after written notice to Symantec, transfer the Software on a permanent basis to another person or entity, provided that you retain no copies of the Software and the transferee agrees to the terms of this license.

YOU MAY NOT:

- A. copy the printed documentation which accompanies the Software;
- B. sublicense, rent or lease any portion of the Software; reverse engineer, decompile, disassemble, modify, translate, make any attempt to discover the source code of the Software, or create derivative works from the Software;
- C. use a previous version or copy of the Software after you have received a disk replacement set or an upgraded version. Upon upgrading the Software, all copies of the prior version must be destroyed;
- D. use a later version of the Software than is provided herewith unless you have purchased upgrade insurance or have otherwise separately acquired the right to use such later version;
- E. use, if you received the software distributed on media containing multiple Symantec products, any Symantec software on the media for which you have not received a permission in a License Module; or
- F. use the Software in any manner not authorized by this license.

2. CONTENT UPDATES:

Certain Symantec software products utilize content that is updated from time to time (antivirus products utilize updated virus definitions; content filtering products utilize updated URL lists; firewall products utilize updated firewall rules; vulnerability assessment products utilize updated vulnerability data, etc.; collectively, these are referred to as "Content Updates"). You may obtain Content Updates for any period for which you have purchased a subscription for Content Updates for the Software (including any subscription included with your original purchase of the Software), purchased upgrade insurance for the Software, entered into a maintenance agreement that includes Content Updates, or otherwise separately acquired the right to obtain Content Updates. This license does not otherwise permit you to obtain and use Content Updates.

3. SIXTY DAY MONEY BACK GUARANTEE:

If you are the original licensee of this copy of the Software and are dissatisfied with it for any reason, you may return the complete product, together with your receipt, to Symantec or an authorized dealer, postage prepaid, for a full refund at any time during the sixty (60) day period following the delivery to you of the Software.

4. LIMITED WARRANTY:

Symantec warrants that the media on which the Software is distributed will be free from defects for a period of sixty (60) days from the date of delivery of the Software to you. Your sole remedy in the event of a breach of this warranty will be that Symantec will, at its option, replace any defective media returned to Symantec within the warranty period or refund the money you paid for the Software. Symantec does not warrant that the Software will meet

your requirements or that operation of the Software will be uninterrupted or that the Software will be error-free. THE ABOVE WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE AND COUNTRY TO COUNTRY.

5. DISCLAIMER OF DAMAGES:

SOME STATES AND COUNTRIES, INCLUDING MEMBER COUNTRIES OF THE EUROPEAN ECONOMIC AREA, DO NOT ALLOW THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THE BELOW LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW AND REGARDLESS OF WHETHER ANY REMEDY SET FORTH HEREIN FAILS OF ITS ESSENTIAL PURPOSE, IN NO EVENT WILL SYMANTEC OR ITS LICENSORS BE LIABLE TO YOU FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT OR SIMILAR DAMAGES, INCLUDING ANY LOST PROFITS OR LOST DATA ARISING OUT OF THE USE OR INABILITY TO USE THE SOFTWARE EVEN IF SYMANTEC HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

IN NO CASE SHALL SYMANTEC'S OR ITS LICENSORS' LIABILITY EXCEED THE PURCHASE PRICE FOR THE SOFTWARE. The disclaimers and limitations set forth above will apply regardless of whether you accept the Software.

6. U.S. GOVERNMENT RESTRICTED RIGHTS:

RESTRICTED RIGHTS LEGEND. All Symantec products and documentation are commercial in nature. The software and software documentation are "Commercial Items", as that term is defined in 48 C.F.R. section 2.101, consisting of "Commercial Computer Software" and "Commercial Computer Software Documentation", as such terms are defined in 48 C.F.R. section 252.227-7014(a)(5) and 48 C.F.R. section 252.227-7014(a)(1), and used in 48 C.F.R. section 12.212 and 48 C.F.R. section 227.7202, as applicable. Consistent with 48 C.F.R. section 12.212, 48 C.F.R. section 252.227-7015, 48 C.F.R. section 227.7202 through 227.7202-4, 48 C.F.R. section 52.227-14, and other relevant sections of the Code of Federal Regulations, as applicable, Symantec's computer software and computer software documentation are licensed to United States Government end users with only those rights as granted to all other end users, according to the terms and conditions contained in this license agreement. Manufacturer is Symantec Corporation, 20330 Stevens Creek Blvd., Cupertino, CA 95014.

7. GENERAL:

If You are located in North America or Latin America, this Agreement will be governed by the laws of the State of California, United States of America. Otherwise, this

Agreement will be governed by the laws of England. This Agreement and any related License Module is the entire agreement between You and Symantec relating to the Software and: (i) supersedes all prior or contemporaneous oral or written communications, proposals and representations with respect to its subject matter; and (ii) prevails over any conflicting or additional terms of any quote, order, acknowledgment or similar communications between the parties. This Agreement may only be modified by a License Module or by a written document which has been signed by both You and Symantec. This Agreement shall terminate upon Your breach of any term contained herein and You shall cease use of and destroy all copies of the Software. The disclaimers of warranties and damages and limitations on liability shall survive termination. Should you have any questions concerning this Agreement, or if you desire to contact Symantec for any reason, please write: (i) Symantec Customer Service, 555 International Way, Springfield, OR 97477, USA, or (ii) Symantec Customer Service Center, PO BOX 5689, Dublin 15, Ireland.

Contents

Section 1 Getting started

Emergency assistance

When to start from the CD	17
Identify your problem	18
What tool should I use for my problem?	19
If you update your version of Mac OS X v10.1	20
Top Technical Support issues	21

Chapter 1 About Norton SystemWorks for Macintosh

What's new in Norton SystemWorks for Macintosh	23
Norton SystemWorks features	24
About Norton Utilities for Macintosh	24
About Mac OS X support	27
About Norton AntiVirus	27
About LiveUpdate	28
About Norton Scheduler	28
About other products on the CD	29
Is my computer protected now?	29

Chapter 2 Installing Norton SystemWorks for Macintosh

System requirements	31
Before installation	33
Read the Read Me file	33
Start from the CD	33
Scan for viruses	35
Examine your startup disk	36
Delete unwanted files	38

Installation	38
Install Norton SystemWorks in Mac OS 8.1-9.x	38
Install Norton SystemWorks for Mac OS X v10.1	44
After installation	47
Restart your computer	48
Register Norton SystemWorks	48
Read Late Breaking News	50
If you connect to the Internet through America Online	50
Explore the CD	51
If you need to uninstall Norton SystemWorks	52
Uninstall Norton SystemWorks from Mac OS 8.1-9.x	53
Uninstall Norton SystemWorks from Mac OS X v10.1	53

Chapter 3 **Norton SystemWorks basics**

How to start Norton SystemWorks	55
How to exit Norton SystemWorks	56
Use Norton SystemWorks shortcuts	57
Use contextual menus in Mac OS 8.1-9.x	57
Use drag and drop	58
Maintain your computer with Norton SystemWorks	59
Enable and disable Norton AntiVirus Auto-Protect	59
Protect disks with Norton FileSaver updates	62
Respond to Norton FileSaver alerts in Mac OS 8.1-9.x	65
Set Norton FileSaver preferences in Mac OS 8.1-9.x	66
Locate missing disks in Mac OS 8.1-9.x	67
Rescan to show missing disks	67
Search available devices to locate a disk	68
Rescan to locate a disk	69
Add a custom disk in Mac OS 8.1-9.x	70
Maintenance checklist	71
Avoid viruses	72
Prepare for emergencies	72
For more information	72
Access Help	73
Open the Read Me file	74
Access the User's Guide PDF	74
Use the Service & Support Knowledge Base	75

Chapter 4 Keeping current with LiveUpdate

About program updates	77
About protection updates	78
When you should update	78
Before updating	78
If you use America Online to connect	79
If you update on an internal network	79
If you can't use LiveUpdate	79
Update procedures	80
Update everything now	81
Customize a LiveUpdate session	81
After updating	81
View the LiveUpdate Summary	82
Read the LiveUpdate What's New file	82
Empty the Trash after a LiveUpdate session	82
Check product version numbers and dates	82
Schedule future updates	83
Schedule future updates in Mac OS 8.1-9.x	83
Schedule future updates in Mac OS X v10.1	86

Section 2 Norton AntiVirus

Chapter 5 Protecting disks, files, and data from viruses

Scan disks, folders, and files	93
If problems are found during a scan	96
Scan email attachments	96
Decontamination procedures	97
View and print scan history	97
Save and print scan reports	98
Add scheduled Norton AntiVirus scans	99
Edit scheduled events	101
Delete scheduled events	102
Disable scheduled events	102
Perform a scan from the command line	104

Chapter 6 What to do if a virus is found

If Auto-Protect finds a virus	107
If Auto-Protect finds a virus and repairs the file	107
If Auto-Protect finds a virus but does not repair the file	107
If Auto-Protect finds a virus and cannot repair the file	108
If removable media is infected	108
If a virus is found while scanning	109
Repair infected files	110
If Norton AntiVirus can't repair a file	110
Delete infected files	111
If you receive a Virus-like Activity alert in Mac OS 8.1–9.x	112
Look up virus names and definitions	113
Look up virus definitions on the Symantec Web site	115

Chapter 7 Customizing Norton AntiVirus for Macintosh

About General Preferences	117
Set General Preferences in Mac OS 8.1–9.x	117
Set General Preferences in Mac OS X v10.1	118
About Custom Preferences	120
Access Custom Preferences in Mac OS 8.1–9.x	120
Access Custom Preferences in Mac OS X v10.1	121
About Floppy Scan Preferences	122
About SafeZone Preferences	123
Add and remove Custom SafeZones	125
About Scan Preferences	125
About Prevention Preferences	128
About Alert Preferences	131
About Report Preferences	133
About Compression Preferences	135
About Reminder Preferences	137
Password-protect Norton AntiVirus menus	138
Change your password	140
Remove password protection	140
Manage virus-like activities	140
Remove entries from the Exceptions List	141
Clear all entries from the Exceptions List	141

Chapter 8 Troubleshooting in Norton AntiVirus for Macintosh

Installation problems	143
Startup problems	144
Protection problems	146
General Macintosh troubleshooting	148
Other troubleshooting steps	149

Section 3 Norton Utilities

Chapter 9 Examining, repairing, and recovering disks

When to use Norton Disk Doctor	153
Use Volume Recover in Mac OS 8.1-9.x	154
The examination and repair process	154
Start Norton Disk Doctor	155
Set Norton Disk Doctor test preferences	155
Select the disks to examine	158
If a disk doesn't appear in the list	159
If the Finder rejects removable media	159
Run Norton Disk Doctor tests	159
Save an Undo file in Mac OS 8.1-9.x	160
Examine disks	160
If a problem is found	162
If Norton Disk Doctor can't complete the examination	163
If Norton Disk Doctor can't repair a problem	163
Create aliases for files that can't be repaired	163
Manage examination results	164
Set report preferences	165
Use Norton Disk Doctor for routine maintenance	165
Rebuild the Desktop in Mac OS 8.1-9.x	165
Add a file to the Desktop in Mac OS 8.1-9.x	166
Recover damaged disks with Volume Recover	167
When not to use FileSaver files	167
What Volume Recover can't do	168
The recovery process	168
Select the disk to recover	169
Search for FileSaver information	170
Recover a disk using FileSaver information	170
Prepare the recovered disk for use	171
If recovery is not successful	171
Rebuild a disk directory	171

- Get information about disks, folders, and files 173
 - View file, folder, and disk information 173
 - About disk information 174
 - About folder information 175
 - About applications and files 177

Chapter 10 Recovering missing or erased files

- Use Fast Find in Mac OS 8.1-9.x 181
 - Start a Fast Find search 182
 - Refine Fast Find search criteria 182
- Manage Fast Find search results 184
 - Customize the found files list 184
 - Work with found files 185
 - Change file info, settings, and icons 186
- Recover files with UnErase 187
 - UnErase search methods 188
 - Before using UnErase 188
- Start UnErase 188
 - If a disk doesn't appear (Mac OS 8.1-9.x) 189
- Use Quick Search 189
 - If the file isn't found by Quick Search 189
- Manage UnErase search results 190
 - Sort or filter UnErase search results 190
 - View a file's information or contents 192
- Recover a file or folder 194
- Restore recovered files 195
 - Join data and resource forks 195
 - Rejoin recovered file segments 197
- Perform customized searches 198
 - Perform Catalog, File Type, and Text searches 198
 - Customized search options 199
 - Create File Type templates 201
- Set UnErase preferences 203

Chapter 11 Enhancing performance and security

- Improve a computer's performance 205
 - Why disk performance degrades 205
 - About optimization and file fragmentation 206
 - How Speed Disk defragments 206
 - How Speed Disk optimizes 207
 - Phases of optimization 207
- Before you use Speed Disk 208

Start Speed Disk	209
View fragmentation status	210
Optimize a disk	210
If Norton FileSaver is enabled for an optimized disk	211
If you want to optimize a startup disk	211
Defragment files	211
Display more disk information	212
About the disk map	213
Locate a file in the disk map	214
About unmovable files	214
Customize optimization	214
Select a Speed Disk profile	215
About the Speed Disk Profile Editor	216
Create a Speed Disk profile	216
Set Speed Disk preferences	222
Test performance in Mac OS 8.1-9.x	223
When to run System Info tests	224
How to use ratings information	224
Run System Info	225
Work with test results	225
Examine data in more detail	228
About System Info tests	229
About CPU benchmark tests	229
About Video benchmark tests	231
About Disk benchmark tests	232
About FPU benchmark tests	234
Display disk activity in Mac OS 8.1-9.x	235
Configure DiskLight	236
Remove data permanently in Mac OS 8.1-9.x	237
How Wipe Info works	237
Start Wipe Info	238
Wipe items on your disks	239
Increase Wipe Info security	241
Work with the Wipe Info Trash	241

Chapter 12 Troubleshooting computer problems

If Norton Disk Doctor and UnErase cannot solve your	
problems	243
Prepare your computer	244
Check all cables	244
Have you added anything new lately?	245
Is it a hardware problem?	245
USB issues	246
FireWire device problems	247
SCSI device conflicts	247
SCSI termination problems	248
Extension conflicts	248
Replace a damaged disk driver	250
Zap the PRAM (reset Parameter RAM)	251
Replace damaged System files	251
Recover files before sending a disk to a technician	251
Reformat your hard disk	252

Section 4 Norton SystemWorks featured products

Chapter 13 Norton SystemWorks featured products

Retrospect Express quick start	256
What's new in Retrospect Express	256
Retrospect Express system requirements	257
Install Retrospect Express	257
Remove Retrospect Express	257
Start Retrospect Express	258
Access the Retrospect Express PDFs and Read Me	258
About backup devices	259
Alsoft DiskWarrior Recovery Edition quick start	260
Use DiskWarrior Recovery Edition	261
Recover HFS and HFS Extended disks	261
Work with a recovered disk	262
About the DiskWarrior Recovery Edition report	263
For more information	263
Spring Cleaning quick start	264
Spring Cleaning system requirements	264
Install Spring Cleaning	264
Uninstall Spring Cleaning	265
Use Spring Cleaning	265

Section 5 Appendices

Appendix A Norton AntiVirus for Macintosh messages

Mac OS 8.1–9.x and Mac OS X v10.1 messages	269
Mac OS 8.1–9.x specific messages	271
Mac OS X v10.1 specific messages	272
Auto-Protect messages	273
Auto-Protect messages specific to Mac OS 8.1–9.x	274
Auto-Protect messages specific to Mac OS X v10.1	274

Appendix B Norton Disk Doctor messages

About Norton Disk Doctor messages	275
Driver Descriptor Map and Partition Map messages	275
Master Directory Block and Volume Header Block messages	276
B-Tree node messages	277
B-Tree header messages	277
Catalog tree messages	277
Extents tree messages	279
File messages	279
HFS Plus Wrapper messages	281
Mac OS X hardlink messages	281

Appendix C Using AppleScript with Norton AntiVirus

Script commands	285
-----------------------	-----

Appendix D Using Norton AntiVirus on a network

- Notes to the administrator 287
- Scanning network drives 287
- Using Norton AntiVirus Auto-Protect on a server 288
- Preparing an emergency response plan 288
 - Before a virus is detected 289
 - If a virus is detected 290

Service and support solutions

Aladdin Systems technical support

Dantz Development Corporation technical support

Glossary

Index

A large, stylized yellow number '1' is positioned in the top right corner of the slide. It has a thick, blocky appearance with a slight shadow effect.

Getting started

Emergency assistance

If you have an emergency, read through the suggestions in this section before installing Norton SystemWorks for Macintosh.

When to start from the CD

It's not always best to install Norton SystemWorks for Macintosh if your disk has a problem. Do not install Norton SystemWorks on a disk that needs repair or contains lost files. Installing Norton SystemWorks could destroy the data that you want to recover.

See ["Before installation"](#) on page 33.

If you purchased Norton SystemWorks to maintain your Macintosh and do not currently have a problem, you can install Norton SystemWorks for Macintosh.

See ["Start from the CD"](#) on page 33.

The Norton SystemWorks for Macintosh CD contains Mac OS 9.2.x. If your disk is damaged or contains erased files that you want to recover, you can perform the most effective repairs when you restart from the Norton SystemWorks for Macintosh CD. When you restart from the CD, you can install Norton SystemWorks for Macintosh.

Identify your problem

Use the following checklist for emergency advice. For a description of all Norton SystemWorks tools, see [“What tool should I use for my problem?”](#) on page 19.

Problem	Recommendation
You think you have a virus	<p>If you have not installed Norton SystemWorks, restart from the Norton SystemWorks for Macintosh CD and scan your computer for viruses. See “Scan for viruses” on page 35.</p> <p>If you have already installed Norton SystemWorks and Auto-Protect informed you that your computer has a virus, respond to the alert. See “If Auto-Protect finds a virus” on page 107.</p> <p>If a file is infected, repair or delete it. See “Repair infected files” on page 110.</p> <p>Ensure up-to-date protection by regularly updating your virus definitions and scanning your hard disk. See “Protecting disks, files, and data from viruses” on page 93.</p>
Your computer won’t start from your normal startup disk, or you see the message Do You Want To Initialize? after starting from the CD	<p>In response to the message, click No or Cancel.</p> <p>Restart from the CD and use Norton Disk Doctor to examine the disk and repair the damage or rebuild the disk’s directory.</p> <p>If disk damage can’t be repaired, you can still recover data with UnErase.</p>
You see a folder with a blinking “?”	Use Norton Disk Doctor to examine the disk and repair the damage. If disk damage can’t be repaired, you can still recover data with UnErase.
You need to repair a disk or recover data	Do not install Norton SystemWorks on a disk that you want to repair or from which you want to recover data. Any new information that is saved to your disk might destroy the files that you are trying to recover.

What tool should I use for my problem?

Each Norton SystemWorks tool helps you solve a specific type of problem. Many recommendations include restarting from the Norton SystemWorks for Macintosh CD.

Problem	Recommendation
Your computer won't start from your normal startup disk, or you see the message, Do You Want To Initialize? after booting from the CD	In response to the message, click No or Cancel . Restart from the Norton SystemWorks for Macintosh CD and use Norton Disk Doctor to examine the disk and repair the damage or rebuild the disk's directory. If disk damage can't be repaired, you can still recover data with UnErase.
You think you have a virus	Restart from the Norton SystemWorks for Macintosh CD and scan for viruses. See " Scan for viruses " on page 35.
Your disks or files are damaged and you need to repair a disk or recover data	Use Norton Disk Doctor to examine and repair the disk. See " When to use Norton Disk Doctor " on page 153. Do not install Norton SystemWorks on a disk that you want to repair, or from which you want to recover data. New files might overwrite the files that you want to recover.
You accidentally reinitialized your hard disk	Run Volume Recover to restore critical information to your disk. See " Locate missing disks in Mac OS 8.1-9.x " on page 67.
You can't find a file, or you need to rescue files from a damaged disk	Use UnErase to recover files. See " Recovering missing or erased files " on page 181.
Your disk performance is sluggish	Run Speed Disk to reduce file and disk fragmentation and optimize your hard disk. See " Improve a computer's performance " on page 205.
You want to remove data permanently	Run Wipe Info to permanently delete files, folders, and remnants of previously erased data that were left on the disk. See " Remove data permanently in Mac OS 8.1-9.x " on page 237.

Problem	Recommendation
You want to identify problems before they become serious	<div><div>■</div><div>In Mac OS 8.5-9.x, let Norton FileSaver scan your disks for problems while running in the background. See “Protect disks with Norton FileSaver updates” on page 62.</div></div> <div><div>■</div><div>In Mac OS X, examine your disks with Norton Disk Doctor.</div></div>
You want to make sure that your Norton SystemWorks program files are up-to-date	Run LiveUpdate. See “Keeping current with LiveUpdate” on page 77.
You need to troubleshoot a problem	See “Troubleshooting computer problems” on page 243.

If you update your version of Mac OS X v10.1

See [“About program updates”](#) on page 77.

If updates to Mac OS X v10.1 are released after you purchase Norton SystemWorks for Macintosh, you might need to update the Mac OS X v10.1 Norton Utilities disk repair components of Norton SystemWorks for Macintosh.

Symantec posts periodic updates for your installed program files. These files are available through LiveUpdate. Descriptions of updates to Norton SystemWorks for Macintosh components are posted on the Symantec Web site. For instructions on accessing the Symantec Web site, see [“Service and support solutions”](#) on page 291.

See [“Start from the CD”](#) on page 33.

You can always restart and run tools from the Norton SystemWorks for Macintosh CD.

Top Technical Support issues

The following table contains the top Norton Utilities issues that have been received by the Technical Support technicians at Symantec, and where to find information about them.

Support issue	Recommendation	For more information
Compatibility: ■ Which versions of Norton SystemWorks are compatible with Mac OS X/Mac OS 9.x ■ Norton SystemWorks 1.0 won't start Macintosh computers running the latest Mac OS	You might need to install Norton SystemWorks onto a disk with which you can access your main hard disk.	See "System requirements" on page 31. See "Start from the CD" on page 33. See "If you can't start from the CD" on page 34.
Installation and post-installation problems: ■ Problems installing Norton SystemWorks ■ After installing Norton SystemWorks, and restarting, your computer stops responding	Check for compatibility issues. Read the Read Me for any specific compatibility issues. If you have an old version (version 3.5) of Norton Utilities for Macintosh, you must manually remove the FileSaver control panel and hidden files.	See "System requirements" on page 31. See "Read the Read Me file" on page 33. See "Remove older FileSaver files" on page 249.
Problems starting or running your Macintosh: ■ Volume will not start due to damaged System software ■ How to run Norton Disk Doctor	Restart from the Norton SystemWorks for Macintosh CD and use Norton Disk Doctor to examine your startup disk for problems before you install.	See "Examine your startup disk" on page 36.
Finding missing files: ■ How to use Fast Find ■ How to recover files with UnErase	Fast Find provides techniques to help you locate missing files that might not be erased. UnErase recovers erased files.	See "Use Fast Find in Mac OS 8.1-9.x" on page 181. See "Recover files with UnErase" on page 187.

What tool should I use for my problem?

See
["Troubleshooting
computer
problems"](#) on
page 243.

Beyond the repair and recovery features in Norton SystemWorks, there are general hardware and Mac OS troubleshooting tips in this manual and on the Symantec Web site.

About Norton SystemWorks for Macintosh

1



If you have an emergency, do not install Norton SystemWorks yet! See [“Emergency assistance”](#) on page 17.

See [“Installing Norton SystemWorks for Macintosh”](#) on page 31.

Versions of Norton SystemWorks for both Mac OS 8.1-9.x and Mac OS X v10.1 are included on the CD. If you do not currently have a problem, you can proceed with installation.

What's new in Norton SystemWorks for Macintosh

Norton SystemWorks for Macintosh now includes:

- Separate installations for Mac OS X v10.1 and Mac OS 8.1-9.x.
- Mac OS X v10.1-compatible Norton Scheduler lets you schedule when to run Norton AntiVirus, Norton FileSaver, and LiveUpdate.

Norton Utilities for Macintosh now includes:

- Increased support for disk repair and recovery in Mac OS X. You can examine, repair, and optimize Mac OS X v10.1 partitions when your computer is restarted from a Mac OS 9.x partition or from the Norton SystemWorks for Macintosh CD.
- Enhanced file tracking and directory updates in Mac OS X v10.1.

Norton AntiVirus for Macintosh now includes:

- Mac OS X v10.1-compatible version of Auto-Protect, which provides constant monitoring of your computer.
- More flexible configuration and control features, including automatic repair of infected files.
- More protection for your computer with a designated Universal SafeZone that scans all files that are saved to disk.

Norton SystemWorks features

Norton SystemWorks for Macintosh combines protection, repair, and prevention features. It protects your data from viruses and other malicious code. It helps you solve and prevent disk problems, recover deleted files, repair damaged disks, and optimize hard disk performance. It also lets you keep your virus protection and program components up-to-date over the Internet.

About Norton Utilities for Macintosh

Unexpected problems can negatively affect the best protected computer. The logical structures of your hard disk might become corrupted. You might accidentally delete an important file, or an entire folder of important files. A crash might erase startup and configuration settings, making your computer unusable. Norton Utilities provides the best chance of recovering from these problems.

Some Norton Utilities tools work most effectively in Mac OS 8.1-9.x and are not installed in Mac OS X v10.1. Other tools have versions that are unique to Mac OS X v10.1. All of the utilities and the environments in which they work are described in the following table.

Tool/Feature Mac OS environment	What it does
Norton Disk Doctor Norton SystemWorks CD Mac OS 8.1-9.x Mac OS X v10.1	Finds and repairs disk problems. Even when your hard disk won't restart, you can restart from the Norton SystemWorks for Macintosh CD and use Norton Disk Doctor to make repairs. See "Run Norton Disk Doctor tests" on page 159.
UnErase Norton SystemWorks CD Mac OS 8.1-9.x Mac OS X v10.1	When used in conjunction with Norton FileSaver, UnErase recovers virtually any deleted file or folder, saving you from recreating lost work or from searching backup disks for lost files. See "Recovering missing or erased files" on page 181.
Norton FileSaver Norton SystemWorks CD Mac OS 8.1-9.x Mac OS X v10.1	In Mac OS 8.1-9.x, Norton FileSaver scans your disks and notifies you when disk repair or optimization is required. See "Protect disks with Norton FileSaver updates" on page 62. In Mac OS X v10.1, Norton FileSaver saves vital disk directory information in a file that UnErase uses to recover lost files. When you restart from the Norton SystemWorks for Macintosh CD, Volume Recover uses Norton FileSaver information to restore damaged volumes.
LiveUpdate Mac OS 8.1-9.x Mac OS X v10.1	Connects to the Symantec Web site and retrieves program updates. See "Keeping current with LiveUpdate" on page 77.
Norton Scheduler Mac OS X v10.1	Schedules automatic Norton FileSaver and LiveUpdate events. See "Schedule future updates" on page 83.
Volume Recover Norton SystemWorks CD Mac OS 8.1-9.x	Works with Norton FileSaver to restore critical information to crashed or accidentally erased disks. It also rebuilds directories for better chances of data recovery. See "Recover damaged disks with Volume Recover" on page 167.

Tool/Feature Mac OS environment	What it does
Speed Disk Speed Disk Profile Editor Norton SystemWorks CD Mac OS 8.1-9.x	Defragments files and free space, and organizes files on your disks to provide faster performance. Lets you customize file arrangement to match your computing activity. See “Improve a computer’s performance” on page 205.
Wipe Info Norton SystemWorks CD Mac OS 8.1-9.x	Cleans selected files from your disk, preventing the recovery of information that you have deleted. See “Remove data permanently in Mac OS 8.1-9.x” on page 237.
System Info Mac OS 8.1-9.x Classic	Gives you access to information, such as peripherals, network connections, Internet connection, disk space, memory usage, and performance benchmarks, for the newest Macintosh models. See “Test performance in Mac OS 8.1-9.x” on page 223.
Fast Find Norton SystemWorks CD Mac OS 8.1-9.x Classic	Locates files or folders by file name, kind, or type and creator codes. A <i>file type</i> is a four-character code that is stored in each file that, along with a creator code, associates the file with an application. Fast Find lets you edit file type, creator, and icon information. See “Use Fast Find in Mac OS 8.1-9.x” on page 181.
DiskLight Mac OS 8.1-9.x Classic	Keeps you informed of disk read and write activity, even when it appears that no processes are running. See “Display disk activity in Mac OS 8.1-9.x” on page 235.
HTML Help Mac OS X v10.1	Includes additional information about Norton SystemWorks for Macintosh. The HTML Help file can be viewed with the Apple Help Viewer. See “Access Help” on page 73.
Apple Guide Help Mac OS 8.1-9.x	Context-sensitive, interactive Help that explains and guides you through many activities. See “To use Apple Guide Help in Mac OS 8.1-9.x” on page 73.
Norton Disk Editor Plus Mac OS 8.1-9.x Norton Disk Editor X Mac OS X v10.1	Lets experts access the bits and bytes on a disk. Using this tool is sometimes the only way that damaged files can be salvaged or repaired. Do not use it unless instructed to do so by Symantec Technical Support.

See [“Protect disks with Norton FileSaver updates”](#) on page 62.

Norton FileSaver starts when your computer does and records changes to your disks, including file additions and deletions. This information is used by UnErase, Norton Disk Doctor, and Volume Recover to facilitate disk and file recovery.

About Mac OS X support

Norton SystemWorks for Macintosh 2.0 runs in the Mac OS X v10.1 environment. It does not run in the Classic environment and is not supported in Mac OS X v10.04 or earlier.

Norton SystemWorks for Macintosh 1.0.2 is also included on the Norton SystemWorks for Macintosh CD. It runs in Mac OS 8.1-9.x or when you restart from the Norton SystemWorks for Macintosh CD. If you have a previous version of Norton Utilities or Norton AntiVirus installed, you can continue to use them in the Mac OS 8.1-9.x environment.

About Norton AntiVirus

Norton AntiVirus for Macintosh provides comprehensive virus prevention, detection, and elimination software for your computer. It finds and repairs *infected files* (files that contain viruses) to keep your data safe and secure. Norton AntiVirus easily updates its *virus definitions* (virus information that lets an antivirus program recognize and alert you to the presence of a specific virus) over the Internet to stay prepared for the latest threats.



The Norton AntiVirus Help includes extensive information about viruses and how they spread. See [“Access Help”](#) on page 73.

Feature	Description
Virus definition service	The virus definition service consists of files that Norton AntiVirus uses to recognize viruses and intercept their activity. You can look up virus names in Norton AntiVirus and access an encyclopedia of virus descriptions on the Symantec Web site. See “Look up virus definitions on the Symantec Web site” on page 115.
Bloodhound technology	The Norton AntiVirus scanning technology, Bloodhound detects new and unknown viruses. It detects viruses by analyzing an executable file’s structure, behavior, and other attributes such as programming logic, computer instructions, and any data contained in the file.

Feature	Description
Auto-Protect	Norton AntiVirus Auto-Protect loads into memory when your computer starts up, providing constant protection while you work. It eliminates viruses and Trojan horses, including macro viruses, and repairs damaged files. It monitors your computer for any unusual symptoms that may indicate an active virus. It also checks for viruses every time you use software programs on your computer, insert floppy disks or other removable media, use the Internet, or use document files that you receive or create.
HTML Help Mac OS X v10.1	An expanded online version of the User's Guide and the HTML Help file can be viewed with the Apple Help Viewer. See "Access Help" on page 73.
Apple Guide Help Mac OS 8.1-9.x	Context-sensitive, interactive Help that explains and guides you through many activities. See "To use Apple Guide Help in Mac OS 8.1-9.x" on page 73.

About LiveUpdate

See ["Keeping current with LiveUpdate"](#) on page 77.

LiveUpdate updates all Symantec products that are installed on your computer, as well as its own program files. If you have Norton AntiVirus installed, LiveUpdate also updates the files that are used by Norton AntiVirus to keep your virus protection current. It connects to the Symantec Web site via the Internet and retrieves program updates.

About Norton Scheduler

In Mac OS X v10.1, Norton Scheduler schedules automatic Norton FileSaver and LiveUpdate events.

See ["Schedule future updates in Mac OS 8.1-9.x"](#) on page 83.

About other products on the CD

In addition to Norton Utilities and Norton AntiVirus, there are other leading utilities, shareware, and freeware on the Norton SystemWorks for Macintosh CD:

- Retrospect Express Backup from Dantz: Lets you back up your files quickly and easily to a wide range of removable media. See [“Retrospect Express quick start”](#) on page 256.
- Alsoft DiskWarrior Recovery Edition: Provides additional disk utilities to improve your computer’s performance. See [“Alsoft DiskWarrior Recovery Edition quick start”](#) on page 260.
- Aladdin Spring Cleaning: Lets you uninstall old programs and their associated files safely and completely, and remove the clutter that is left over from your Internet sessions. See [“Spring Cleaning quick start”](#) on page 264.
- Shareware and freeware programs: Let you try additional utility programs. See [“Explore the CD”](#) on page 51.

Is my computer protected now?

When you have installed Norton SystemWorks, you have complete virus protection from Norton AntiVirus Auto-Protect, and Norton FileSaver starts taking regular snapshots of your hard disks. The disk recovery tools use this information to help you recover your disks and files after a crash.

See [“Maintenance checklist”](#) on page 71.

It is up to you to maintain your computer’s good condition. New viruses are created constantly. Viruses can spread when you start your computer from an infected disk or when you run an infected program. There are several actions that you can take to avoid viruses and to recover quickly should a virus strike. There are other actions that you can take to prevent disk problems. Use the tools in Norton SystemWorks to perform regular maintenance.



Installing Norton SystemWorks for Macintosh

2

The Norton SystemWorks for Macintosh CD contains Mac OS System software as well as installation files for Norton Utilities for Macintosh, Norton AntiVirus for Mac OS 8.1-9.x and for Mac OS X v10.1. The CD also contains installation files for Dantz Retrospect Express, Alsoft DiskWarrior Recovery Edition, Aladdin Spring Cleaning, and shareware and freeware products.

Files from previous versions of Norton AntiVirus for Macintosh and Symantec AntiVirus for Macintosh (SAM) are deleted when you install Norton AntiVirus to the same location.

System requirements

The system requirements are different, depending on whether you are installing Norton SystemWorks for Macintosh OS 8.1-9.x or Norton SystemWorks for Macintosh OS X v10.1.

Not all tools are installed in Mac OS X v10.1. Some tools run in Mac OS versions 8.1-9.x, and are most effective when you start from the Norton SystemWorks for Macintosh CD. The two Norton SystemWorks for Macintosh installers automatically install tools for the corresponding platforms. For a list of the tools and the Mac OS versions in which they run, see [“Norton SystemWorks features”](#) on page 24.

Mac OS 8.1–9.x

- Macintosh OS 8.1-9.x (8.5 or later for Control Strip functionality)
- Macintosh PowerPC processor
- 24 MB of RAM
- 10 MB of available disk space for installation; 10% of total disk space available for optimization
- Internet connection to download program updates
- CD-ROM or DVD-ROM drive

Mac OS X v10.1

Norton SystemWorks for Macintosh does not support Mac OS X versions 10.0-10.0.4. If you want to install Norton SystemWorks for Macintosh in Mac OS X, you must upgrade to Mac OS X v10.1.

- Macintosh OS X v10.1 or later
- Macintosh PowerPC processor, G3 or later (except beige G3 and original PowerBook G3)
- 24 MB of RAM
- 10 MB of available disk space for installation; 10% of total disk space available for optimization
- Internet connection to download program updates
- CD-ROM or DVD-ROM drive

Before installation

Before you install Norton SystemWorks for Macintosh, read the Read Me file, examine your startup disk, and delete any unwanted files from your disks.

For more information	Recommendation
See "Read the Read Me file" on page 33.	Read the Read Me file to see if any late-breaking information will affect your installation.
See "Start from the CD" on page 33.	Start from the Norton SystemWorks for Macintosh CD and examine your startup disk and other mounted disks for damage. Examining all mounted volumes ensures that Norton Disk Doctor detects any problems before you install. In Mac OS 8.1-9.x, starting from the CD also ensures that no system extensions will cause conflicts during installation.
See "Delete unwanted files" on page 38.	Before installing Norton SystemWorks for Macintosh, delete unwanted files and empty the Trash. This saves Norton FileSaver unnecessary work when it starts tracking the files on your disks.

Read the Read Me file

The Read Me file contains late-breaking information, troubleshooting tips, and installation instructions.

To read the Read Me file

- 1 Insert the Norton SystemWorks for Macintosh CD into your CD-ROM drive.
- 2 Open the install folder for the version of Norton SystemWorks that you are installing.
- 3 Double-click **SystemWorks Read Me**.

Start from the CD

Start from the Norton SystemWorks for Macintosh CD and use Norton Disk Doctor to scan for viruses and to detect and repair disk problems. If you are installing in Mac OS 8.1-9.x, restart from the CD to ensure that no system extensions will cause conflicts during installation.

To start your computer from the Norton SystemWorks for Macintosh CD

- 1 Insert the Norton SystemWorks for Macintosh CD into the CD-ROM drive.
- 2 Restart your computer from the Norton SystemWorks for Macintosh CD by using one of the following methods:
 - On the Special menu (in Mac OS 8.1-9.x) or the Apple menu (in Mac OS X v10.1), click **Restart**, then press **C** until Welcome to Mac OS appears.
 - Mac OS X v10.1: On the Apple menu, click **System Preferences**. In the System Preferences window, click **Startup Disk**. Click **Norton SystemWorks 9.2.1 on Norton SystemWorks CD**, and click **Restart**. If prompted, click **Save and Restart**. The Norton SystemWorks for Macintosh desktop pattern appears in the background.
 - Mac OS 8.1-9.x: If your Macintosh has a third-party CD-ROM drive, on the Apple menu, click **Control Panels > Startup Disk**. Double-click **Norton SystemWorks CD** to make it your startup disk. Close the Startup Disk Control Panel. On the Special menu, click **Restart**.
- 3 If the CD window doesn't open automatically, double-click the CD icon to open it.

If you can't start from the CD

See "If you update your version of Mac OS X v10.1" on page 20.

The System software that is included on the Norton SystemWorks for Macintosh CD might not be sufficient to start newer Macintosh models issued after the release of this version of Norton SystemWorks for Macintosh. To find out if a newer CD or software is available, contact Symantec's Customer Service.

See "Read the Read Me file" on page 33.

Certain newer Macintosh computers require specific versions of a file called Mac OS ROM to start. If you are unable to restart your computer from the CD or from another startup disk, there might be a version conflict with the Mac OS ROM file. For more information, see the Read Me file on the Norton SystemWorks for Macintosh CD.

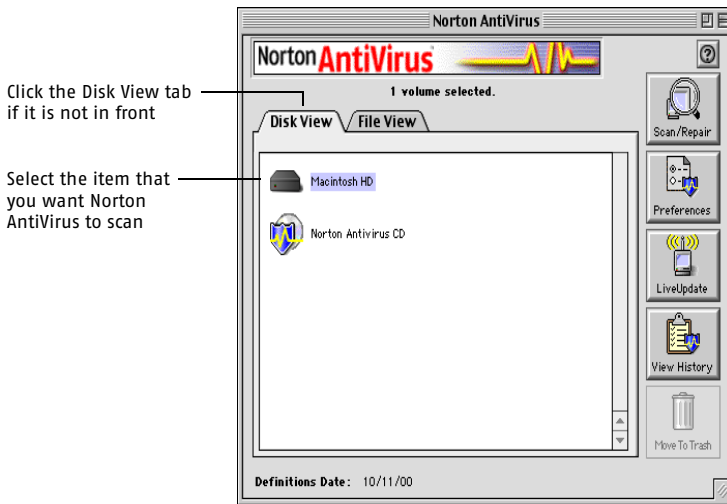
Scan for viruses

To make sure that no viruses are already on your computer, scan it before installing Norton SystemWorks for Macintosh.

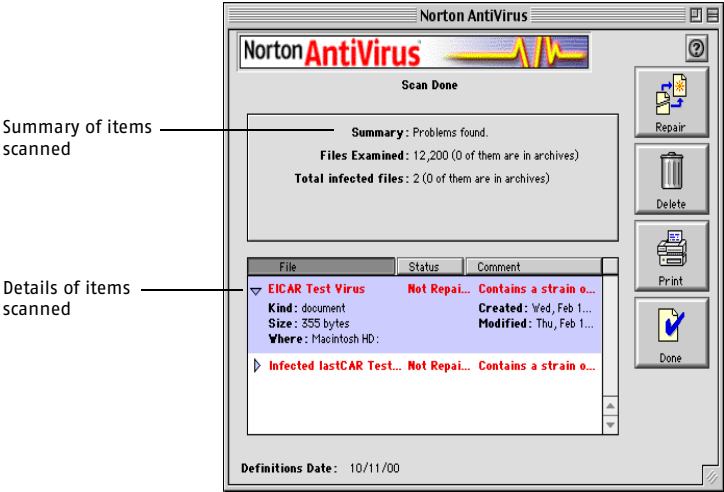
To scan for viruses

See “Start from the CD” on page 33.

- 1 Start your computer using the Norton SystemWorks for Macintosh CD.
- 2 In the CD window, double-click **Norton SystemWorks**.
- 3 In the Norton SystemWorks window, click **Norton AntiVirus**.
If you have already downloaded a more recent virus definitions file than the one currently on the Norton SystemWorks for Macintosh CD, use it to scan. Press **Option** when you open Norton AntiVirus, then select the newer virus definitions file.
- 4 In the Norton AntiVirus main window, on the Disk View tab, select the disk to scan.



- 5
- Click **Scan/Repair**.
- Norton AntiVirus scans the selected disk. If a virus is found during the scan, Norton AntiVirus repairs it automatically. When the scan is complete, the results appear in the scan window.



- See "If a virus is found while scanning" on page 109.
- If the infected file can't be repaired, Norton AntiVirus advises you on how to proceed when you click the infected file.
- 6
- Click **Done**.
- 7
- On the File menu, click **Quit**.

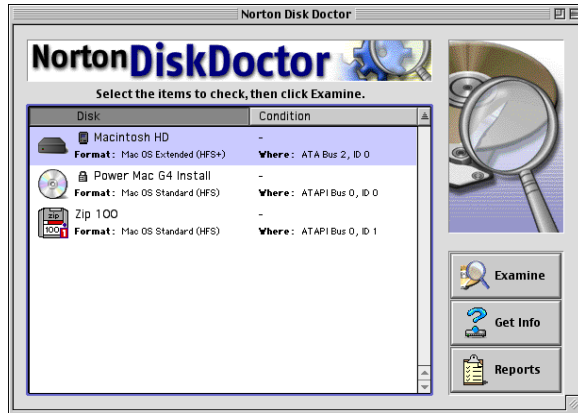
Examine your startup disk

To ensure that your startup disk has no problems, examine it before installing Norton SystemWorks.

To examine your hard disk

See “Start from the CD” on page 33.

- 1 Start your computer from the Norton SystemWorks for Macintosh CD.
- 2 In the CD window, double-click **Norton SystemWorks**.
- 3 In the Norton SystemWorks window, click **Norton Disk Doctor**.



See “Locate missing disks in Mac OS 8.1–9.x” on page 67.

- 4 In the Norton Disk Doctor window, select your startup disk.
If a drive doesn’t appear in the Norton Disk Doctor window, it might be damaged.

- 5 Click **Examine**.

Norton Disk Doctor prompts you to save an Undo file so that you can reverse repairs that Norton Disk Doctor might find during the examination.

See “Save an Undo file in Mac OS 8.1–9.x” on page 160.

- 6 Do one of the following:
 - Click **Cancel** to skip the creation of an Undo file.
 - Select a disk and folder for the Undo file, and click **Save**.
Norton Disk Doctor examines the first selected disk.
Examining the disk for defects can take significantly longer than other parts of the examination.

See “Set Norton Disk Doctor test preferences” on page 155.

- 7 To skip the Defective Media Check, do one of the following:
 - Before you examine the disk, in Norton Disk Doctor Preferences, under General Preferences, uncheck **Check for Defective Media**.
 - During the disk examination, next to Checking Media, click **Skip**.

See [“If a problem is found”](#) on page 162.

- 8 If Norton Disk Doctor finds errors during the examination, it prompts you to fix or skip the repairs.
When the examination is complete, the results appear in the Summary window.
- 9 Click **Done**.
- 10 On the File menu, click **Quit**.

Delete unwanted files

See [“Protect disks with Norton FileSaver updates”](#) on page 62.

Before you install Norton SystemWorks, prepare your computer by deleting any unwanted files and emptying the Trash. Removing unwanted files increases the efficiency and performance of the Norton FileSaver file and directory tracking tools.

Installation

See [“Read the Read Me file”](#) on page 33.

The Installer for each version of Norton SystemWorks for Macintosh is contained in its own folder on the CD.

Install Norton SystemWorks from the Norton SystemWorks for Macintosh CD. When you install Norton SystemWorks in Mac OS X v10.1, any previously installed version of Norton SystemWorks is not updated. If you have a previous version installed, you can continue to use it in Mac OS 8.1-9.x.

Install Norton SystemWorks in Mac OS 8.1–9.x

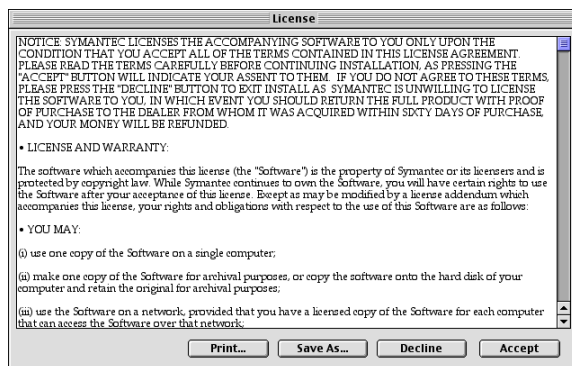
After you have restarted your computer from the CD and examined your disk to ensure that it has no errors and is virus-free, you are ready to install Norton SystemWorks for Macintosh. You can select Easy Install for a full installation, or Custom Install to install selected components. Both types of installations have the same first few steps.

To install Norton SystemWorks in Mac OS 8.1-9.x

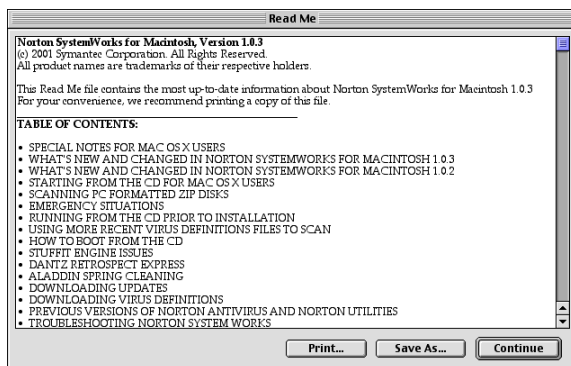
- 1 Insert the Norton SystemWorks for Macintosh CD into the CD-ROM drive.
If the CD window doesn't open automatically, double-click the CD icon to open it.
- 2 In the CD window, open the **Install NSW for OS 8.1-9.x** folder.
- 3 Double-click **Install NSW for OS 8.1-OS9.x**.



- 4 In the Norton SystemWorks for Macintosh welcome dialog box, click **Continue**.



- 5 Click **Accept** to accept the License and Warranty Agreement. If you decline, the installation is cancelled.



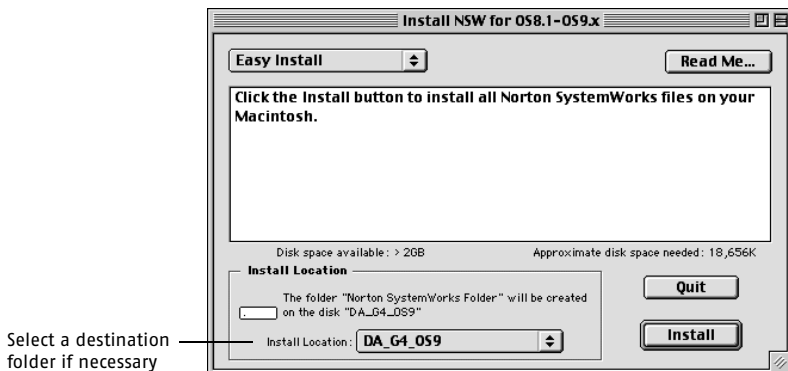
- 6 Scroll through and read the Read Me text, then click **Continue**.
- 7 In the main Installer window, do one of the following:
 - For a full installation, click **Easy Install**. Continue with the steps listed in [“Easy Install”](#) on page 41.
 - To select individual components, click **Custom Install**. Continue with the steps listed in [“Custom Install”](#) on page 42.

Easy Install

Easy Install installs all components of Norton SystemWorks.

To complete an Easy Install

- 1 Under Install Location, confirm or specify a destination folder to which to install.



- 2 If you have multiple partitions on your Macintosh and have a System folder in each one, you are prompted to select a System folder for the installation.

A subscription notice appears describing the subscription to virus definitions. Updates are made available monthly, or more frequently when necessary. You can obtain regular virus definitions updates manually or on a customized schedule using LiveUpdate.

See [“Keeping current with LiveUpdate”](#) on page 77.

- 3 After you have read the subscription notice, click **OK**.
- 4 Select or confirm the Virus Scanning Preferences.

- 5 Click **Set Preferences and Continue**.

If you are installing over a previous version of Norton SystemWorks, Norton AntiVirus, or Norton Utilities, a message appears telling you that the older version was moved to the Trash.

- 6 Follow the on-screen instructions to complete the installation.
- 7 Click **Quit** when installation is complete.

For instructions on restarting your computer from the hard disk, see [“Restart your computer”](#) on page 48.

See [“Select a protection level during installation”](#) on page 43.

Custom Install

Use Custom Install to select individual components of Norton SystemWorks to install.

To complete a Custom Install

- 1
- Check the Norton SystemWorks components that you want to install.



These are the available components to install:

Norton AntiVirus	Installs all Norton AntiVirus components.
■ Norton AntiVirus application	Installs Norton AntiVirus and any needed support files.
■ Norton AntiVirus Auto-Protect	Installs the Auto-Protect extension in the Extensions folder.
■ Norton AntiVirus Additions Folder	Installs the Additions folder in the Extensions folder.
■ Norton AntiVirus Support files	Installs the contextual menu, small scanner, and the Auto-Protect Control Strip module.
Norton Utilities	Installs all Norton Utilities components.
■ Repair/Recovery Tools	Installs Norton Disk Doctor, UnErase, and Volume Recover.
■ Protection/Prevention Tools	Installs Norton FileSaver and its associated files in the Control Panels and Extensions folders.
■ Disk Maintenance Tools	Installs Speed Disk.

■ General Utilities	Installs the contextual menu, Wipe Info, Disklight, and System Info.
LiveUpdate	Installs LiveUpdate for product updates and the Norton Scheduler file extension.

- 2
- If you have multiple partitions on your Macintosh and have a System folder in each one, you are prompted to select a System folder for the installation.
- 3
- Click **Install**.
A subscription notice appears describing the subscription to virus definitions. Updates are made available monthly, or more frequently when necessary. You can obtain regular virus definitions updates manually or on a customized schedule using LiveUpdate.
- 4
- After you have read the subscription notice, click **OK**.
- 5
- Select or confirm the Virus Scanning Preferences.
- 6
- Click **Set Preferences and Continue**.
- 7
- Follow the on-screen instructions to complete the installation.
- 8
- Click **Quit** when installation has completed.
For instructions on restarting your computer from your startup disk, see “Restart your computer” on page 48.

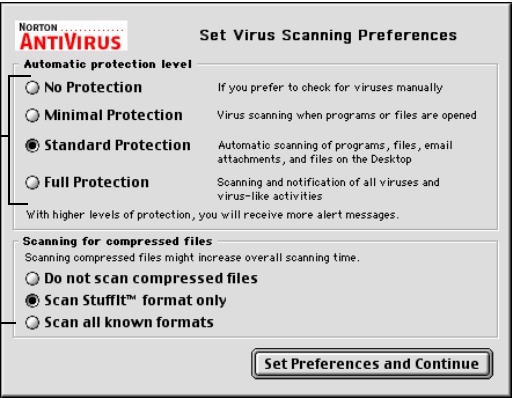
See “Select a protection level during installation” on page 43.

Select a protection level during installation

During the Norton SystemWorks for Macintosh installation process, select a level of virus protection that matches your computing needs. These levels are combinations of more detailed custom preferences.

Select or confirm the level of automatic protection

Scanning all compressed files takes longer



Select from the following protection levels.

No Protection	Auto-Protect is turned off. You have no automatic virus protection with this setting. You can scan for viruses manually, use the contextual menu to scan selected items, or use the control-strip feature to turn Auto-Protect on.
Minimal Protection	Auto-Protect is turned on, but only scans files being opened or created, and Internet file downloads.
Standard Protection	Provides comprehensive protection that monitors Internet activity, installations, and file exchanges, and provides warnings of common virus-like activities.
Full Protection	All of your computing activities are monitored for virus activities. If you use File Sharing on your computer, or your computer is exposed to viruses, use this setting.

The Compression Scanning options let you select the types of compressed files that Norton AntiVirus scans. Because compressed files take longer to scan, you might want to adjust these settings.

To change settings later, see [“To set Compression Preferences in Mac OS 8.1-9.x”](#) on page 136.

Install Norton SystemWorks for Mac OS X v10.1

You must start your computer in Mac OS X v10.1 and be logged on as an administrator in order to install the Mac OS X v10.1 version of Norton SystemWorks. The installation procedure requires that you enter an administrator password. If you do not know if your logon is an Admin logon, you can check it in System Preferences.

To check your logon type

- 1

In Mac OS X v10.1, on the Apple menu, click **System Preferences**.
- 2

Click **Users**.
Your logon name and type are listed.

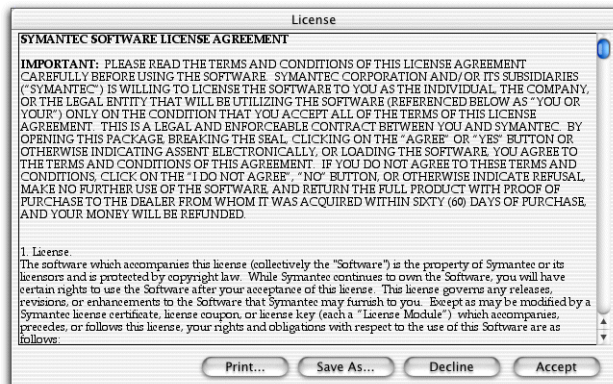
Easy Install performs a full installation; there is no Custom Install.

To install Norton SystemWorks for Mac OS X v10.1

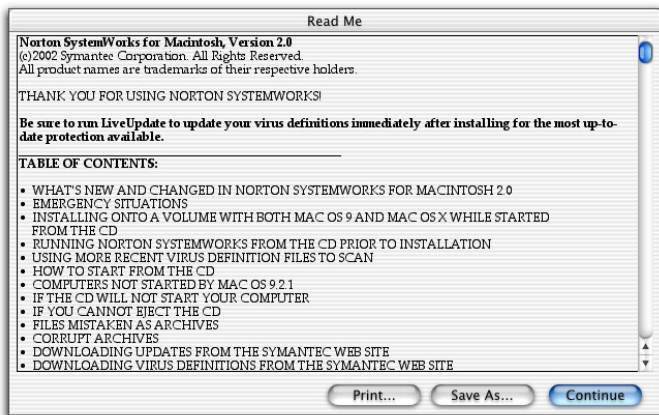
- 1 Insert the Norton SystemWorks for Macintosh CD into the CD-ROM drive.
If the CD window doesn't open automatically, double-click the CD icon to open it.
- 2 In the CD window, open the **Install for OS X** folder.
- 3 Double-click **Install Norton SystemWorks**.
- 4 In the Authenticate window, type your administrator password, then click **OK**.



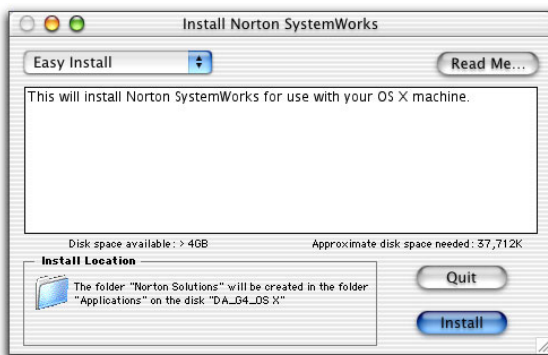
- 5 In the Norton SystemWorks welcome window, click **Continue**.



- 6 In the License window, click **Accept**.
If you decline, you cannot continue with the installation.



- 7 Review the Read Me text, then click **Continue**.



- 8 Click **Install**.
A subscription notice appears describing the subscription to virus definitions. Updates are made available monthly, or more frequently when necessary. You can obtain regular virus definitions updates using LiveUpdate.
- 9 After you have read the subscription notice, click **OK**.
- 10 Click **Quit** when the installation has completed.

After installation

Now that you've installed Norton SystemWorks, complete the following tasks.

More information	Task
See "Restart your computer" on page 48.	Restart your computer from your usual startup disk.
See "Register Norton SystemWorks" on page 48.	Register your software to take advantage of your virus definitions subscription.
See "Read Late Breaking News" on page 50.	Check for late-breaking news about your new software. Use the Internet link installed in the Norton Solutions folder.
See "Protect disks with Norton FileSaver updates" on page 62.	Make sure that the Norton FileSaver update settings are protecting all of your mounted disks.
See "Explore the CD" on page 51.	Get information about additional features and programs that are included on the CD.
See "Keeping current with LiveUpdate" on page 77.	Run LiveUpdate to get the latest virus protection and program files. You can also download new virus definitions from the Symantec Security Response Web site at http://securityresponse.symantec.com
See "About protection updates" on page 78.	Learn more about virus protection and program updates.
See "Examining, repairing, and recovering disks" on page 153.	Examine all of your disks to make sure that they are problem-free.
See "Scan disks, folders, and files" on page 93.	Scan all of your disks to make sure that they are virus-free.
See "Enhancing performance and security" on page 205.	Defragment files, optimize your hard disk, test your computer's performance, and erase files permanently.
See "About Norton Disk Doctor messages" on page 275.	Learn more about Norton Disk Doctor examination messages.
See "About Custom Preferences" on page 120.	Customize the installed settings for Norton AntiVirus.

Restart your computer

You need to restart your computer from your default System disk after installation is complete.

When your computer restarts, Norton FileSaver starts taking regular snapshots of your hard disks. Other Norton SystemWorks rescue and recovery tools use this information to help you recover after a crash.

When you install Norton SystemWorks with Standard Protection for Norton AntiVirus, you are protected from most viruses after you restart. With this level of protection, Norton AntiVirus Auto-Protect loads when you restart and actively protects your computer unless you turn Auto-Protect off.

If you can't eject the CD

If you have trouble ejecting the CD after you restart your computer, try one of the following:

- Press the CD-ROM drive's eject button when your Macintosh restart chime sounds.
- On newer Macintosh computers with a slot-loading CD-ROM drive, press the mouse button while starting up.

Register Norton SystemWorks

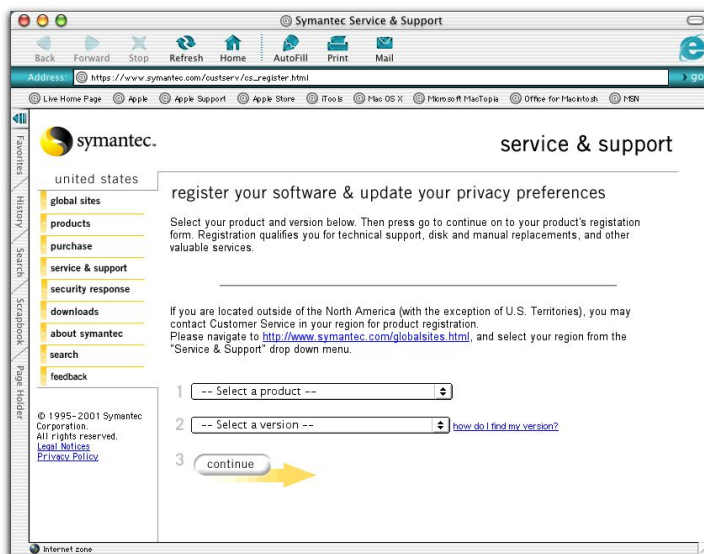
Using your existing Internet connection, you can register Norton SystemWorks for Macintosh via the *Internet* (the global network of computers).

If you are running Macintosh OS 8.5 or higher, an icon in the Norton SystemWorks folder lets you launch your browser and connect to the Symantec software registration page. If you are running an earlier version of Macintosh OS, point your browser to the Symantec Web page.

To register Norton SystemWorks via the Internet

See "If you connect to the Internet through America Online" on page 50.

- 1 Connect to the Internet.
If you use America Online (AOL) to connect to the Internet, you need to connect to it first.
- 2 Do one of the following:
 - If you are using Mac OS X v10.1, in the Norton Solutions folder, double-click **Register Your Software**.
Your default Internet browser displays the Symantec Service & Support registration page.
 - If you are using Mac OS 8.5-9.x, in the Norton SystemWorks for Macintosh folder, double-click **Register Your Software** to display the Symantec Service & Support registration page in your default browser.
 - If you are using Macintosh OS 8.1, start your browser and navigate to the Symantec Service & Support page:
www.symantec.com/custserv/cs_register.html



- 3 On the Symantec Service & Support page, in the Select a product drop-down list, click **Norton SystemWorks for Macintosh**.
- 4 Select the correct version of the product.
- 5 Click **Continue**.

- 6 On the registration page for Norton SystemWorks for Macintosh, type all of the required information.
- 7 Click **Submit Registration**.

Read Late Breaking News

Norton SystemWorks installs a Late Breaking News link. Use this link to get the latest information for your installed software.

To read Late Breaking News

See "To connect to the Symantec Web site via AOL" on page 51.

- 1 Connect to the Internet.
If you use America Online (AOL) to connect to the Internet, you need to connect to it first.
- 2 Do one of the following:
 - If you are using Mac OS X v10.1, in the Norton Solutions folder, double-click **Late Breaking News**.
Your default Internet browser displays the Symantec Macintosh products page.
 - If you are using Mac OS 8.5-9.x, in the Norton SystemWorks for Macintosh folder, double-click **Late Breaking News** to display the Symantec Macintosh products page in your default browser.
 - If you are using Macintosh OS 8.1, start your browser and navigate to the Symantec Web page:
www.symantec.com/consumer_products/home-mac.html

If you connect to the Internet through America Online

If you use America Online (AOL) as your Internet Service Provider (ISP), you must connect to AOL before you go to the Symantec software registration page or view Late Breaking News.

Use this procedure if your Internet Control Panel has its Default Web Browser set to America Online.

To connect to the Symantec Web site via AOL

- 1 Log on to AOL.
- 2 On the AOL Welcome page, click the AOL Internet browser.
- 3 Move the AOL browser and any other open AOL windows out of the way.
- 4 In the Norton SystemWorks window, do one of the following:
 - Double-click **Register Your Software**.
Continue with the registration procedure. See [“Register Norton SystemWorks”](#) on page 48.
 - Double-click **Late Breaking News**.
Continue with the procedure for reading the news. See [“Read Late Breaking News”](#) on page 50.
- 5 Disconnect from AOL.

Explore the CD

In addition to the Norton SystemWorks installer folders and program software, there are several other items on the CD, including Aladdin Spring Cleaning, Dantz Retrospect Express, Alsoft DiskWarrior Recovery Edition, and selected product demos and freeware.

System folder	Use to restart from the CD and run Norton SystemWorks before you install, or any time that you need to scan for viruses, perform repairs, or optimize the disk containing your active System folder.
Norton SystemWorks 2.0 folder	<p>Contains the Norton SystemWorks for Mac OS 8.1-9.x program, that you can use when your computer is restarted from the CD. It also contains the Read Me file, the Norton Utilities folder, the Norton AntiVirus folder, and the LiveUpdate folder.</p> <ul style="list-style-type: none"> ■ The Norton AntiVirus folder contains the Norton AntiVirus for Mac OS 8.1-9.x program and related files. ■ The Norton Utilities folder contains program tools, including Norton Disk Doctor, Speed Disk, and UnErase. It also contains the Tech Support Tools folder, which contains special tools for use by Symantec Technical Support. ■ The LiveUpdate folder contains LiveUpdate files. Use LiveUpdate to update your installed program files and obtain the latest virus definitions.

Aladdin Spring Cleaning	Contains installation files for Mac OS 8.1-9.x and Mac OS X versions of Aladdin Spring Cleaning, a utility that removes unwanted files from your hard drive. See “ Spring Cleaning quick start ” on page 264.
Retrospect Express icon and Install Retrospect Express folder	Lets you copy your files quickly and easily. Retrospect Express works with a wide range of removable media, including Zip disks, Jaz drives, and CD-R/RWs. You can even use it to back up to a secure site over the Internet. See “ Retrospect Express quick start ” on page 256.
Alsoft DiskWarrior Recovery Edition	Provides the ability to rebuild, recover, and optimize disk directories. See “ Alsoft DiskWarrior Recovery Edition quick start ” on page 260.
Demos folder	Contains a demonstration version of Aladdin DragStrip for Mac OS 8.1-9.x, which lets you customize shortcuts on your Desktop.
Freeware folder	Contains Aladdin StuffIt Lite for Mac OS 8.1-9.x and Mac OS X. This popular tool lets you compress and decompress files.
SimpleText program	Lets you read the Read Me file in Mac OS 8.1-9.x.
Documentation folder	Contains an expanded version of the <i>Norton SystemWorks for Macintosh User’s Guide</i> in PDF format and installation files for Adobe Acrobat Reader.

If you need to uninstall Norton SystemWorks

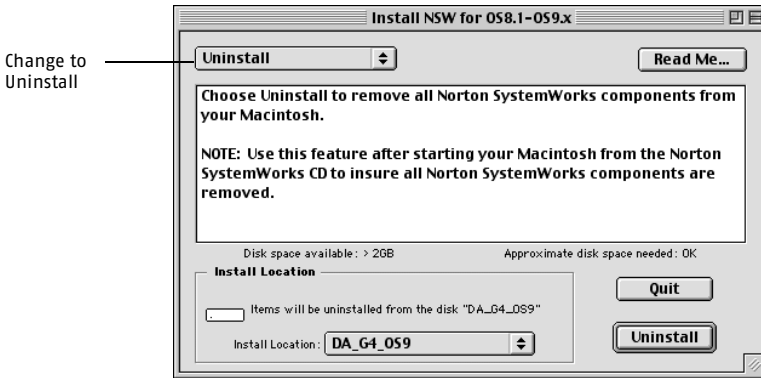
If you need to remove an installed version of Norton SystemWorks from your computer, use the Norton SystemWorks for Macintosh Installer. The process is faster if all other programs are closed before you uninstall Norton SystemWorks.

Uninstall Norton SystemWorks from Mac OS 8.1–9.x

Use the Norton SystemWorks Installer found in the Install NSW for Mac OS 8.1–9.x folder to uninstall Norton SystemWorks.

To uninstall Norton SystemWorks for Mac OS 8.1–9.x

- 1 Insert the Norton SystemWorks for Macintosh CD into your CD-ROM drive.
If the CD window doesn't open automatically, double-click the CD icon.
- 2 In the CD window, open the **Install for OS 8.1–9.x** folder.
- 3 Double-click **Norton SystemWorks Installer**.
- 4 Click **Continue** to progress through the information screens.
- 5 Click **Accept** to accept the License and Warranty Agreement.
If you decline, the uninstallation is cancelled.
- 6 In the pop-up list, change Easy Install to Uninstall.



- 7 Select the disk from which to uninstall Norton SystemWorks.
- 8 Click **Uninstall**.

Uninstall Norton SystemWorks from Mac OS X v10.1

See [“To check your logon type”](#) on page 44.

You must start your computer in Mac OS X v10.1 and be logged on as an administrator to uninstall the Mac OS X version of Norton SystemWorks for Macintosh. The uninstall procedure requires that you enter an administrator password. If you do not know if your logon is an Admin logon, you can check it in System Preferences.

To uninstall Norton SystemWorks for Mac OS X v10.1

- 1** Insert the Norton SystemWorks for Macintosh CD into your CD-ROM drive.
If the CD window doesn't open automatically, double-click the CD icon to open it.
- 2** In the CD window, open the **Install for OS X** folder.
- 3** Double-click **Install Norton SystemWorks**.
- 4** In the Authenticate dialog box, type your administrator password, then click **OK**.
- 5** Click **Continue** to progress through the information screens.
- 6** Click **Accept** to accept the License and Warranty Agreement.
If you decline, the Install program quits.
- 7** In the pop-up list, change Easy Install to Uninstall.
- 8** Click **Uninstall**.

Some features are not removed by the uninstallation process in case you have other Symantec products that use them. These features include LiveUpdate, the Norton Scheduler, and the Sym OS X kernel. For information on how to remove these features manually, see the Service & Support Knowledge Base on the Symantec Web site.

See "Use the Service & Support Knowledge Base" on page 75.

Norton SystemWorks basics

3

Basic information about Norton SystemWorks includes:

- Starting and exiting Norton SystemWorks
- Working with Auto-Protect
- Working with Norton FileSaver in Mac OS 8.1-9.x
- Locating missing disks in Mac OS 8.1-9.x
- General information about how to work with Norton AntiVirus
- Using contextual menus and other shortcuts
- Getting more information

How to start Norton SystemWorks

In Mac OS X v10.1, you can use Norton SystemWorks to access Norton Disk Doctor, UnErase, Norton FileSaver, LiveUpdate, Norton Scheduler, and Norton AntiVirus.

In Mac OS 8.1-9.x, you can use Norton SystemWorks to access Norton AntiVirus, Norton Disk Doctor, UnErase, Speed Disk, Norton FileSaver, and LiveUpdate in a single window. You can access more tools on the Utilities menu.

You don't have to start Norton AntiVirus to be protected from viruses if you have Auto-Protect running. You do have to start Norton AntiVirus when you want to:

- Run manual scans of your computer.
- Schedule Norton AntiVirus to run unattended scans.
- Customize virus protection options.
- Repair infections that are found by Auto-Protect when files are opened or programs are launched and Auto-Repair is turned off.

To start Norton SystemWorks

- ❖ Do one of the following:
 - In Mac OS 8.1-9.x: On the Apple menu, click **Norton SystemWorks**.
 - In Mac OS X v10.1: In the Applications folder, double-click **Norton SystemWorks**.

In Mac OS 8.1-9.x, some tools appear only on the Utilities menu.

To start a Norton SystemWorks tool

- ❖ Do one of the following:
 - In the Norton SystemWorks main window, click a tool button.
 - On the Utilities menu, select a tool or program.
 - Use a short cut.
See [“Use Norton SystemWorks shortcuts”](#) on page 57.
 - Enable and disable Auto-Protect from the Control Strip.
See [“Enable and disable Norton AntiVirus Auto-Protect”](#) on page 59.

How to exit Norton SystemWorks

If you have started a program in the Norton SystemWorks main window, you must exit Norton SystemWorks and the program that you started separately. Exiting Norton SystemWorks does not cause the other program to quit.

To exit Norton SystemWorks

- ❖ Do one of the following:
 - In Mac OS 8.1-9.x: On the File menu, click **Quit**.
 - In Mac OS X v10.1: On the Norton SystemWorks menu, click **Quit Norton SystemWorks**.
 - Press **Command-Q**.
 - If the tool is a Control Panel, click the close box.

To exit another Symantec program in Mac OS X v10.1

- 1 Make sure that the program that you want to exit is active.
- 2 Press **Command-Q**.

Use Norton SystemWorks shortcuts

You can access Norton SystemWorks tools with various shortcuts, which include contextual menus, drag-and-drop operations, hot keys, and the Control Strip.

Use contextual menus in Mac OS 8.1–9.x

You can access the Norton contextual menu from anywhere in the Finder. The Recover Files and Wipe Files contextual menus might not appear until you have launched the applications once from the Utilities menu.

To use the contextual menu

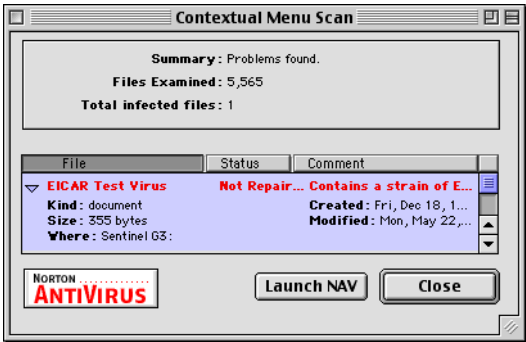
- 1 Press **Control**, then select a disk, folder, or file icon.
- 2 Click **Norton Menu**.
Depending on where you click, different options appear on the menu. If the command that you need does not appear on the submenu, try Control-clicking a different item in the Finder.

Menu item	Description
Disk Doctor Scan	Launches Norton Disk Doctor and examines the selected disk for problems.
Optimize	Launches Speed Disk and optimizes the selected disk. You must restart from the Norton SystemWorks for Macintosh CD to optimize a startup disk.
Recover Files	Launches UnErase, performs a quick search on the selected disk, and lists erased files.

Menu item	Description
Wipe Files/Folders/ Unused Space	Launches Wipe Info and wipes the selected file or folder. If a disk is selected, the unused free space is wiped.
Virus Scan/Repair	Launches the Contextual Menu scan to scan the selected disk, folder, or file. See “To perform anti-virus scans using the contextual menu” on page 58.

To perform anti-virus scans using the contextual menu

- 1
- On the contextual menu, click **Norton Menu > Virus Scan**.
The Contextual Menu scan scans the selected item.



- 2
- If you need to repair a virus, click **Launch NAV** to run Norton AntiVirus.

Use drag and drop

You can use the Finder’s drag-and-drop feature to start many Norton SystemWorks tools.

Drag a disk or volume icon to any of the following Norton SystemWorks program icons.

Program icon	Dragging a disk or volume does this
Norton Disk Doctor	Examine the selected disk.
Speed Disk	Check or optimize the selected disk.
Fast Find	Find an item on the selected disk.
UnErase	Perform a Quick Search on the selected disk.

Program icon	Dragging a disk or volume does this
Wipe Info	Wipe unused space.
Volume Recover	Search for FileSaver files on the selected disk.
Norton SystemWorks	Start Norton Disk Doctor.
Norton AntiVirus	Scan a volume, file, or folder for viruses.

Drag a file or folder icon to any of the following Norton SystemWorks program icons.

Program icon	Dragging a file or folder icon does this
Fast Find	Find the item’s location.
Wipe Info	Delete the item permanently.
Wipe Info Trash can	Wipe the folder or file.
Norton AntiVirus	Scan the file or folder for viruses.

Maintain your computer with Norton SystemWorks

You are less likely to experience problems with your Macintosh when you use Norton SystemWorks tools for preventive maintenance. Norton AntiVirus Auto-Protect runs in the background and alerts you if it detects a virus. Norton FileSaver runs in the background and maintains a record of your disk activity so that you can restore files and directories if damage occurs.

Enable and disable Norton AntiVirus Auto-Protect

Norton AntiVirus Auto-Protect guards against viruses when your computer starts. It checks programs for viruses as they are run and monitors your computer for any activity that might indicate the presence of a virus. In Mac OS 8.1-9.x, when a virus or *virus-like activity* (an event that could be the work of a virus) is detected, Auto-Protect alerts you.

You don’t need to run Norton AntiVirus regularly as long as Auto-Protect is active. Auto-Protect interception prevents viruses from moving to your disk, and in Mac OS 8.1-9.x, you can use the contextual menu to scan a specific volume, file, or folder.

If you need to disable Auto-Protect temporarily

Auto-Protect senses when you're installing software in Mac OS 8.1-9.x so that it doesn't interfere with installation. You can disable it, but it is not recommended.

To disable Auto-Protect temporarily in Mac OS 8.1-9.x

- 1 Start Norton AntiVirus.
- 2 On the Preferences menu, click **Turn Auto-Protect Off**.

To disable Auto-Protect temporarily in Mac OS X v10.1

- 1 Start Norton AntiVirus.
- 2 In the main window, click **Preferences**.
- 3 Click **Auto-Protect**.
- 4 Set Automatic Scanning to **Off**.

Turn Auto-Protect on or off from the Control Strip in Mac OS 8.1-9.x

Norton SystemWorks installs a Control Strip module so that you can turn Auto-Protect on or off without opening the Control Panel or the Norton AntiVirus program.

Turn Auto-Protect
on or off



Auto-Protect Control Strip icon

To enable the Control Strip

- 1 On the Apple menu, click **Control Panels**.
- 2 Click **Control Strip**.
- 3 Make sure that Show Control Strip is selected, or that a Show/Hide Control Strip hot key is defined.

To turn Auto-Protect on or off from the Control Strip

- 1 Open the Control Strip.
- 2 Click the **Auto-Protect** Control Strip icon.
- 3 On the pop-up menu, select one of the following:
 - Auto-Protect On
 - Auto-Protect Off

Fine-tune Auto-Protect performance

 In Mac OS X v10.1, Auto-Protect does not affect your computer's performance.

If you choose the highest level of automatic protection, you might notice that your computer's performance is affected during some activities.

You can adjust protection activity. Before making adjustments, try to determine the activity that seems to cause performance impairment, and make adjustments related to that activity.

If you notice a decrease in your computer's performance, lower the levels of protection for Auto-Protect.

To minimize protection levels in Norton AntiVirus

- 1 Start Norton SystemWorks.
- 2 In the Norton SystemWorks main window, click **Norton AntiVirus**.
- 3 In the General Preferences dialog box, under Automatic protection level, select one of the following:
 - Minimal Protection
 - No Protection
- 4 Under Scanning level for compressed files, click **Do not scan compressed files**.
- 5 In the Custom Preferences dialog box, select the following:

Prevention preferences	Turn off the setting that monitors virus-like activities.
Scan preferences	Turn off automatic scanning of files when they are opened and programs when they are launched.
Compression preferences	Limit the number of file types that are scanned.
SafeZones	Limit the number of SafeZones by clicking Disable SafeZones , or click Custom and limit the selected SafeZones that are protected by Auto-Protect.

See [“Customizing Norton AntiVirus for Macintosh”](#) on page 117.

Protect disks with Norton FileSaver updates

Norton FileSaver is an integral part of Norton SystemWorks disk and file recovery. After you install Norton SystemWorks, Norton FileSaver maintains an updated record of your startup disk's directory and files. This information is used by UnErase, Norton Disk Doctor, and Volume Recover to facilitate disk and file recovery. You can access Norton FileSaver and the Scheduler on the Norton SystemWorks menu.

Norton FileSaver supports disk repair and file recovery. It works in the background and takes a snapshot of disk directory structure. It saves critical disk and directory structure information that Norton Disk Doctor, UnErase, and Volume Recover use to restore disks and files.

The number of files that are tracked by Norton FileSaver varies, depending on the attributes of the erased files. Norton FileSaver purges old information from the FileSaver information file to make room for newly deleted files.

Norton FileSaver maintains volume information in two files in case incorrect information is saved in one file. Norton FileSaver updates the alternate file every day.

See ["Respond to Norton FileSaver alerts in Mac OS 8.1-9.x"](#) on page 65.

In Mac OS 8.1-9.x, Norton FileSaver scans your disks for directory damage and file fragmentation. If Norton FileSaver detects a major problem, it prompts you to run Norton Disk Doctor. If it detects significant file fragmentation, it prompts you to run Speed Disk.

See ["When to use Norton Disk Doctor"](#) on page 153.

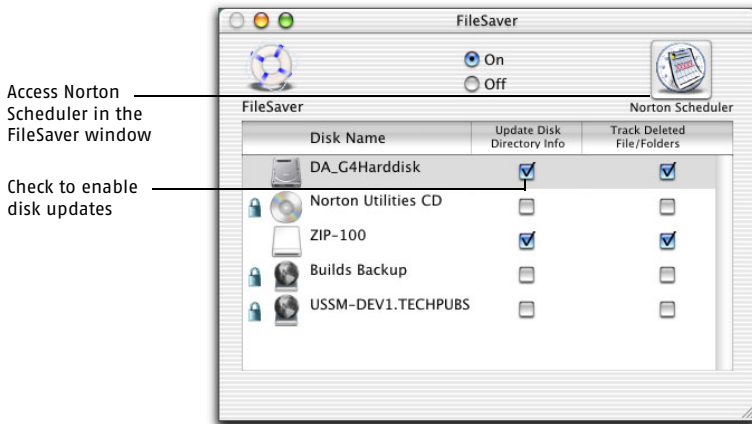
Norton FileSaver does not check for minor errors such as bad file modification dates. Run Norton Disk Doctor regularly to conduct a complete disk examination and maintain the full integrity of your disks and files.

If you need to disable Norton FileSaver

You can disable Norton FileSaver temporarily if you need to restart your computer and you want to prevent Norton FileSaver from updating the directory information (for example, if directory damage might have occurred). Although disabled, it remembers which disks are selected for protection. Volume Recover cannot recover current information on a disk without current Norton FileSaver protection.

To disable Norton FileSaver

- 1 Do one of the following:
 - In Mac OS X v10.1: In the Norton SystemWorks window, click **FileSaver**.



- In Mac OS 8.1-9.x: On the Apple menu, click **Control Panels > Norton FileSaver**.

- 2 In the FileSaver window, click **Off**.

In Mac OS 8.1-9.x, whenever you restart your computer with Extensions Off, Norton FileSaver is disabled. To disable only the Norton FileSaver extension, use the Extensions Manager.

Schedule Norton FileSaver events in Mac OS X v10.1

In Mac OS X v10.1, Norton FileSaver is preset to update disk information daily at noon. Use Norton Scheduler to add, edit, delete, and disable scheduled Norton FileSaver events.

See ["Access Help"](#) on page 73.

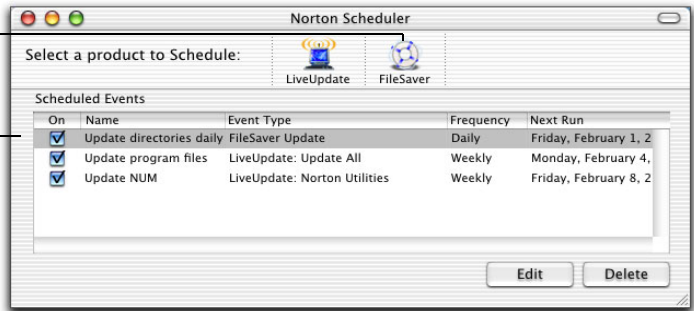
For more information about scheduling Norton FileSaver events, see the Norton Scheduler online Help.

To schedule Norton FileSaver events in Mac OS X v10.1

- 1 Start Norton SystemWorks.
- 2 Click **Norton Scheduler**.

Click the FileSaver icon to schedule an event

Events for installed products



- 3 Click **FileSaver**.
- 4 In the Add FileSaver Task window, type a name for the scheduled event.
- 5 In the Set a Frequency list, select one of the following:
 - Monthly
 - Weekly
 - Daily
 - Annually
- 6 On the File menu, click **Close/Save**.

See ["Access Help"](#) on page 73.

For details of Norton Scheduler events, see the Norton Scheduler Help.

In Mac OS 8.1-9.x, change Norton FileSaver scheduled events and other activities in the Norton FileSaver preferences. See ["Set Norton FileSaver preferences in Mac OS 8.1-9.x"](#) on page 66.

Control Norton FileSaver from the keyboard in Mac OS 8.1-9.x

In Mac OS 8.1-9.x, you can use keyboard shortcuts to temporarily alter Norton FileSaver current settings without opening the Norton FileSaver window. By default, all Norton FileSaver Hot Keys are enabled.

To define a different Hot Keys setting

- 1
- Start Norton FileSaver.
- 2
- On the Hot Keys tab, next to the Hot Key that you want to change, click **Set**.

Hot Keys	Description
Option	Bypass Scan/Update: Prevent Norton FileSaver from updating its files now. Use this shortcut when shutting down your computer, ejecting a disk, or whenever Norton FileSaver is scheduled to scan or update.
Command-Option-U	Update Now: Causes Norton FileSaver to update its disk information files immediately.
Command-Shift-S	Scan Now: Causes Norton FileSaver to scan for problems immediately.
Command-Option	Bypass Deletion Tracking: Prevents Norton FileSaver from tracking files that you delete while emptying the Trash. This is useful when you want to prevent Norton FileSaver from tracking a file's deletion for security reasons. This option also speeds Trash emptying if you are deleting a large number of files that you know you will not want to recover.

- 3
- In the Hot Key recording dialog box, type the new key combination:
 - Press any combination of modifier keys for bypass activities: Shift, Command, Option, Caps Lock, and Control.
 - Press any combination of modifier keys in combination with another key for update and scan activities.
- 4
- Click **Accept** to record the new Hot Key combination.
- 5
- In the Norton FileSaver window, click **Save Settings**.

Respond to Norton FileSaver alerts in Mac OS 8.1-9.x

In Mac OS 8.1-9.x, Norton FileSaver can alert you when a disk problem is found during a scan and you need to run Norton Disk Doctor, or when your disk fragmentation level indicates that it's time to run Speed Disk.

To respond to a Norton FileSaver alert in Mac OS 8.1–9.x

- 1
- When a Norton FileSaver alert appears, click one of the following:
 - Repair Now: Run Norton Disk Doctor.
 - Scan Now: Run Speed Disk.
- 2
- If you are prompted to locate Norton Disk Doctor or Speed Disk, locate the requested tool, and click **Open**.

Set Norton FileSaver preferences in Mac OS 8.1–9.x

In Mac OS 8.1-9.x, Norton FileSaver scans your disk when your computer has been idle for 30 minutes, when you shut down, or after an improper shut down (for example, when your computer has crashed). You can change these settings using Norton FileSaver preferences or you can override them temporarily using a Hot Key.

To review or change Norton FileSaver settings

- 1
- On the Apple menu, click **Control Panels > Norton FileSaver**.
- 2
- In the Norton FileSaver window, ensure that On is checked.
- 3
- Select protection for each disk.
Your choices are:

Scan Disk For Problems	Indicate which disks to monitor for problems.
Update Disk Directory Info	Indicate which disks to protect with FileSaver data protection.
Track Deleted Files/Folders	Indicate the disks whose deleted files Norton FileSaver should track. This setting should be turned on unless the disk is used primarily to store temporary or Internet cache files.
Automatically scan and update new disks	Norton FileSaver tracks new disks without any action from you. Uncheck this option if you do not want it activated.

- On the Preferences tab, change the settings that apply to all disks.
Your choices are:

Scan Schedule	Specify when Norton FileSaver scans your disks to check for problems. Norton FileSaver is preset to scan before shutting down or when you restart after your computer has crashed, shut down improperly, or after it has been idle for 30 minutes.
Update Schedule	Specify how often Norton FileSaver updates the information in its directory files. If Norton FileSaver does not update information on a regular basis, Volume Recover might not be able to effectively recover your disk in an emergency.
Hot Keys	Keyboard combinations for Norton FileSaver shortcuts.
General	Configure Norton FileSaver messages, including whether to be prompted to run Speed Disk, and how long they should display.

- Click **Save Settings**.
- To quit Norton FileSaver, click the close box.

Locate missing disks in Mac OS 8.1-9.x

In Mac OS X v10.1, all available disks, mounted or unmounted, appear in the Norton Disk Doctor and UnErase window. In Mac OS 8.1-9.x, if a disk has a damaged file system, it might not appear in the Norton Disk Doctor, UnErase, or Volume Recover main window. You can try to locate it in the following ways:

- Rescan for unmounted disks with the Show Missing Disks command.
- Use the Add Missing Disks feature to search for data structures that are characteristic of a disk.
- Locate devices by their ID numbers or other information using Add Custom Disks.

Rescan to show missing disks

You can use the Show Missing Disks feature to mount any connected disks or partitions, including recently added disks.

To locate a missing disk in Mac OS 8.1-9.x

- 1
- Start Norton Disk Doctor, UnErase, or Volume Recover.
- 2
- On the Disks menu, click **Show Missing Disks**.
All active, connected devices are rescanned to find available disks. If a disk is found, it appears in the main window.

See “Add a custom disk in Mac OS 8.1-9.x” on page 70.

Missing USB and FireWire devices might not appear when you use this procedure. You might have to mount them using the Add Custom Disk command.

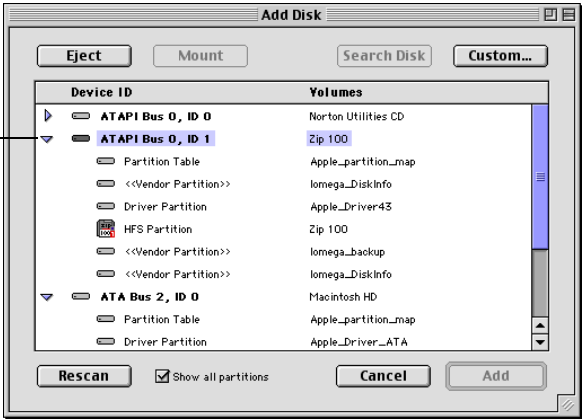
Search available devices to locate a disk

The Add Disk dialog box displays a list of all available devices on which you can search for missing disks and partitions. From the Add Disk dialog box you can search devices for missing volume information, add a custom disk, eject removable media, and mount selected disks and partitions.

To search available devices for a missing disk

- 1
- Start Norton Disk Doctor, UnErase, or Volume Recover.
- 2
- On the Disks menu, click **Add Custom Disks**.

Click a triangle to display a device’s volumes (disks), partitions, and other structural information



- 3
- In the Add Disk dialog box, in the Device ID column, click a device’s name.
- 4
- Click the triangle next to a device icon to display all of its associated volumes (disks) and partitions.
- 5
- If the missing volume appears, select it.

- 6 Click **Add**.
The missing volume is added to the list in the Norton Disk Doctor, UnErase, or Volume recover window.

- 7 Run Norton Disk Doctor to examine the volume for problems.

The following features are available in the Add Disk dialog box.

Eject	Eject the removable media. This lets you switch a removable media item such as a Zip, Jaz, or Orb disk.
Mount	Mount the selected disk. This command can be useful if you want to make a disk available that is not damaged, but does not appear on the Desktop.
Search Disk	Searches the entire device looking for volumes, which provides access to volume partitions that might otherwise be unavailable. This button is available if Norton Disk Doctor doesn't find partition information in its initial scan.
Rescan	Repeats a scan of all available devices. If the device contains removable media, make sure that the media is inserted. If a removable disk was not spun up when Norton Disk Doctor started, rescanning might succeed in mounting the disk. If no other devices are available, the button is unavailable.
Show All Partitions	Displays unmounted partitions in the tool's window, available for searching. Click the triangle next to a listed device to display its partitions. Select this option to ensure that hidden partitions that contain the device driver and other structures appear when you click a device's triangle.
Custom	If none of the Add Disk dialog box options result in a damaged partition's appearance, you can manually describe the device in the Custom Disk dialog box.

Rescan to locate a disk

If a disk is not located with the Show Missing Disks command, you can rescan the device chain.

To rescan the device chain

- 1 In the Add Disk dialog box, click **Rescan**.
- 2 If the device appears, select it.
- 3 Click **Add**.
The disk appears in the Norton Disk Doctor, UnErase, or Volume Recover window.

If these techniques fail, you can manually enter specific structural data about the disk.

Add a custom disk in Mac OS 8.1-9.x

In Mac OS 8.1-9.x, if rescanning to locate a device was unsuccessful, use the Custom Disk dialog box to specify the structural parameters for the disk volume you want to recover. The structural parameters include the starting sector of the partition, the number of blocks in the volume, the allocation block size, and the first block in the volume bitmap.

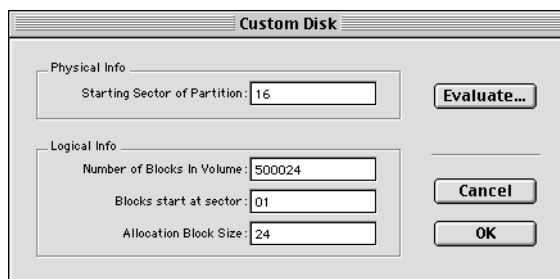
See “Service and support solutions” on page 291.

If you need help determining the structural parameters of a missing disk, Symantec Technical Support might be able to help.

Use this procedure after you have tried searching for the device while running Norton Disk Doctor, UnErase, or Volume Recover. See “[Search available devices to locate a disk](#)” on page 68.

To add a custom disk in Mac OS 8.1-9.x

- 1 In the Add Disk dialog box, click **Custom**.



- 2 In the Custom Disk dialog box, in the Physical Info and Logical Info fields, type the disk structure parameters if you know them.
- 3 To view an estimated level of confidence that your entered parameters match the structure of the disk for which you're searching, click **Evaluate**.

- 4 Click **OK** to close the evaluation dialog box.
- 5 Click **OK** to add the disk to the Add Disk dialog box list.

If you still can't mount the disk or partition, there is probably a hardware problem. See ["Is it a hardware problem?"](#) on page 245.

Maintenance checklist

With the exception of Norton AntiVirus Auto-Protect and Norton FileSaver disk tracking, Norton SystemWorks tools do not run automatically. To maintain your computer's good condition, perform the following tasks regularly.

For more information	Task and Benefit
See "Run Norton Disk Doctor tests" on page 159.	Run Norton Disk Doctor for a comprehensive check of file-level problems before every backup and before running Speed Disk.
See "Improve a computer's performance" on page 205.	Run Speed Disk any time that you notice your disk slowing down. This change in performance can be due to excessive fragmentation of files or poor placement of files on the disk.
See "Protect disks with Norton FileSaver updates" on page 62.	Keep Norton FileSaver enabled to keep track of your files. In Mac OS 8.1-9.x, Norton FileSaver informs you of directory damage and file fragmentation and helps you fix these problems. It also saves critical disk information that can be used by Norton Disk Doctor, Volume Recover, and UnErase to restore your disk or recover your files.
See "Rebuild the Desktop in Mac OS 8.1-9.x" on page 165.	Rebuild your Desktop files once a month. Desktop files help keep track of the files on each volume. If they are damaged, they can cause startup problems. Rebuilding them regularly helps prevent these problems.
See "Keeping current with LiveUpdate" on page 77.	Run LiveUpdate to keep your program files up-to-date. LiveUpdate downloads and installs the latest program updates to ensure that your product is current.
See "Enable and disable Norton AntiVirus Auto-Protect" on page 59.	Keep Norton AntiVirus Auto-Protect turned on at all times to prevent viruses from infecting your computer.

For more information	Task and Benefit
See “Scan disks, folders, and files” on page 93.	Manually scan removable media. If Norton AntiVirus Auto-Protect is not turned on, scan removable media before you use them. In Mac OS X v10.1, always scan removable media before you use them.
See “Add scheduled Norton AntiVirus scans” on page 99.	Schedule scans to occur automatically.

Avoid viruses

It is important that you practice regular file maintenance and that you keep Norton AntiVirus up-to-date.

To avoid viruses, do the following additional tasks:

- Write-protect removable media.
- Stay informed about viruses by logging on to the Symantec Security Response Web site (<http://securityresponse.symantec.com>) where there is extensive, frequently updated information on viruses and virus protection.

Prepare for emergencies

It is important that you are prepared in case your data, hard disks, or other media are damaged, or your computer is infected by a virus. To prepare for emergencies, back up files regularly and keep more than just the most recent backup.

To prepare for emergencies:

- Back up data files regularly and keep more than just the most recent backup.
- Make sure that you always have a Mac OS System CD or other external device from which you can start your computer.

For more information

Norton SystemWorks comes with online Help for Norton AntiVirus, Norton Utilities, LiveUpdate, and Norton Scheduler, a Read Me file for each version, and an enhanced User’s Guide in PDF format.

Access Help

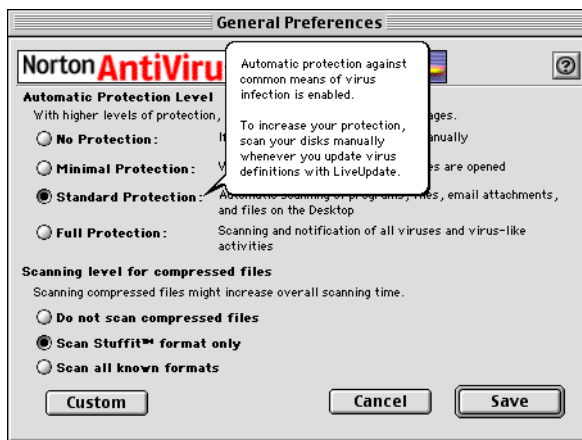
Norton Utilities and Norton AntiVirus Help for Mac OS 8.1–9.x includes context-sensitive Balloon Help and an interactive Apple Guide Help system that you can access in any dialog box or window. In Mac OS X v10.1, the Apple Help Viewer Help is available in most tools.

To use Apple Guide Help in Mac OS 8.1–9.x

- 1 Do one of the following:
 - In the upper right-hand corner of a dialog box or window, click **Help**.
 - On the Help menu, click **<tool name> Help**.
For example, in UnErase, click UnErase Help.
 - On the Help menu, click **<tool name> Shortcuts**.
- 2 In the Norton Utilities or Norton AntiVirus Guide, do one of the following:
 - Select a topic for more information.
 - Follow the steps in the Guide window.

Use Balloon Help in Mac OS 8.1–9.x

You can use Balloon Help to familiarize yourself with the menu commands and dialog box options in Norton Utilities and Norton AntiVirus for Mac OS 8.1–9.x. With Balloon Help turned on, a descriptive text balloon appears when you move the cursor over a dialog box option, menu, or window item.



To turn on Balloon Help

- ❖ On the Help menu, click **Show Balloons**.

To turn off Balloon Help

- ❖ On the Help menu, click **Hide Balloons**.

Use the Apple Help Viewer in Mac OS X v10.1

Opening Help in Norton Utilities or Norton AntiVirus for Mac OS X v10.1 displays the Apple Help Viewer with a list of Help topics.

To use Help in Mac OS X v10.1

- 1 On the Help menu, click one of the following:
 - Norton Utilities Help
 - Norton AntiVirus Help
- 2 In the list of Help topics, select a topic to read about it.

Open the Read Me file

The Norton SystemWorks for Macintosh CD contains one Read Me file for each version of the software. You can access the Read Me file on the CD or in the Norton SystemWorks folder after installation.

To open the Read Me file

- 1 Insert the Norton SystemWorks for Macintosh CD into your CD-ROM drive.
- 2 Open the folder for the version of Norton SystemWorks that you have installed.
- 3 Double-click the **Read Me** file.

Access the User's Guide PDF

The *Norton SystemWorks for Macintosh User's Guide* is available in printable Adobe Acrobat PDF format on the CD. An Adobe Acrobat Reader can be installed if it is not already on your computer.

You cannot view the PDF if you start your computer from the CD, because Acrobat Reader does not run when you start from a locked device.



If you are using Mac OS X v10.1, you can use Preview to read the User's Guide PDF.

You can also drag the PDF to your hard disk. It needs approximately 2.5 MB of disk space.

To install Adobe Acrobat Reader

- 1 In the Norton SystemWorks for Macintosh CD window, open the **Documentation** folder.
- 2 Double-click **Adobe Acrobat Reader installer**.
- 3 Follow the prompts to select a folder for Adobe Acrobat Reader and complete the installation.

To open the PDF

- 1 In the Norton SystemWorks for Macintosh CD window, open the **Documentation** folder.
- 2 Double-click **NSW User Guide**.

Use the Service & Support Knowledge Base

The Symantec Service & Support Web site includes a collection of articles that are specific to problems that you might have or procedures that you might want to perform with any Symantec product. These articles answer common problems and questions that are received from users, discuss technical information in depth, and address issues that arose after this User's Guide was published.

If you don't find the information that you are looking for in this User's Guide or in the Help, try looking it up in the Knowledge Base.

To use the Service & Support Knowledge Base

- 1 Point your browser to the Service & Support Web site:
service.symantec.com
- 2 Select your user type.
- 3 At the bottom of the introduction page, click **Knowledge Base**.
- 4 Select your product and its version number, then click **Continue**.
- 5 Type a word or phrase that describes your question.
The Web page includes tips for how best to enter your query.
- 6 Click **Search**.
All articles that match your query are listed.
- 7 Click a title to read an article.



Keeping current with LiveUpdate

4

LiveUpdate updates all Symantec products installed on your computer, as well as its own program files. If you have Norton AntiVirus installed, LiveUpdate also updates the files used by Norton AntiVirus to keep your virus protection current.

Using your existing Internet connection, LiveUpdate connects to the Symantec LiveUpdate server, checks for available updates, then downloads and installs them.



If you have installed Norton SystemWorks in Mac OS X v10.1 and Mac OS 9 and want to update features in both versions, you must run LiveUpdate separately in Mac OS X and Mac OS 9.

About program updates

Program updates are minor improvements to your installed product, usually available for download from a Web site. These differ from *product upgrades*, which are newer versions of entire products. Program updates that have self-installers to replace existing software code are called *patches*. Patches are usually created to extend operating system or hardware compatibility, adjust a performance issue, or fix bugs.

LiveUpdate automates the process of downloading and installing program updates. It locates and downloads files from an Internet site, then installs them, and deletes the leftover files from your computer.

About protection updates

One of the most common reasons for computer virus infections is that you have not updated your protection files regularly. Symantec provides online access to protection updates by subscription.

The virus definition service provides access to the latest virus signatures and other technology from Symantec. Norton AntiVirus, Norton SystemWorks, and Norton Internet Security use the updates available from the virus definition service to detect the newest virus threats.

See "Subscription policy" on page 294.

The initial subscription is included with the purchase of the product.

In Mac OS X, Norton AntiVirus has a setting to remind you to update your virus definitions if the current virus definitions are over one month (30 days) old, or are dated the previous year.

The following alert appears when it's time to update virus definitions:



When you should update

See "Schedule future updates" on page 83.

Run LiveUpdate as soon as you have installed your product. Once you know that your files are up-to-date, run LiveUpdate at least once a month.

If you have Norton AntiVirus, Norton Personal Firewall, Norton Internet Security, or Norton SystemWorks installed, update at least once a month to ensure that you have the latest virus definitions and firewall protection.

Before updating

In some cases there are preparations you must make before running LiveUpdate. For example, if you use America Online (AOL) as your Internet Service Provider (ISP), you must log on to AOL before you use LiveUpdate.

If you use America Online to connect

If you use America Online (AOL) as your Internet Service Provider (ISP), you need to log on to AOL before you use LiveUpdate.

To use LiveUpdate with AOL

- 1 Log on to AOL.
- 2 On the AOL Welcome page, click the AOL Internet browser.
- 3 Start LiveUpdate.
- 4 Follow the instructions in “[Update procedures](#)” on page 80.
- 5 When the LiveUpdate session is complete, close your AOL browser.
If your LiveUpdate session requires that you restart your computer, disconnect from AOL before restarting.

If you update on an internal network

If you run LiveUpdate on a Macintosh that is connected to a network that is within a company firewall, your network administrator might set up an internal LiveUpdate server on your network. LiveUpdate should find this location automatically.

If you have trouble connecting to an internal LiveUpdate server, contact your network administrator.

If you can't use LiveUpdate

When new updates become available, Symantec posts them on the Symantec Web site. If you can't run LiveUpdate, you can download new update files from the Symantec Web site.

To download virus definitions from the Symantec Web site

- 1 Start your Internet browser and go to the following site:
<http://securityresponse.symantec.com/avcenter/defs.download.html>
If this page doesn't load, go to <http://securityresponse.symantec.com> and click the **Download Virus Definitions** link, then click the **Download Virus Definitions Updates** link.
- 2 On the Download Virus Definitions page, click **Norton AntiVirus for Macintosh**.

- 3 Click **Download Updates**.
- 4 On the Download Updates page, select the file to download.
Be sure to select files for the appropriate version of your product.
Information about the update is included with the download.

To download product updates from the Symantec Web site

- 1 Start your Internet browser and go to the following site:
<http://securityresponse.symantec.com/downloads/>
If this page doesn't load, go to <http://securityresponse.symantec.com> and click **downloads**.
- 2 On the downloads page, in the product updates list, select the product for which you want an update.
- 3 Click **Browse**.
- 4 On the product page, select the version of the product.
- 5 Click **Continue**.
- 6 On the updates page, select the file to download.
Information about the update is included with the download.

Update procedures

See "[Schedule future updates](#)" on page 83.

You can have LiveUpdate look for all updates at once, or select individual items to update. You can also schedule a future LiveUpdate session.

Select items to update during this session

Updates all installed components

Lets you schedule specific updates

Indicates the last update activity



Update everything now

Updating all available files is the fastest method to ensure the latest protection for all your Symantec products.

To update everything now

- 1 On the Utilities menu, click **LiveUpdate**.
- 2 Click **Update Everything Now**.
A status dialog box keeps you informed of the file transfer process.
- 3 If you want to skip a file download, click **Skip File**.
The file transfer takes a few minutes. When it is complete, LiveUpdate notifies you.

See “View the LiveUpdate Summary” on page 82.

Customize a LiveUpdate session

If you want to update only one or two items, you can select them and omit items that you don’t want to update.

To customize a LiveUpdate session

- 1 In the LiveUpdate window, click **Customize This Update Session**.
LiveUpdate presents a list of available updates. By default, all are checked for inclusion in this update session. If your files are already up-to-date, no items are available for selection.
- 2 Uncheck the items that you don’t want to update.
- 3 Click **Update**.
The file transfer takes a few minutes. When it is complete, LiveUpdate notifies you.

See “View the LiveUpdate Summary” on page 82.

After updating

When a LiveUpdate session is complete, the LiveUpdate Summary window displays a list of what was updated, along with brief notes.

After updating Norton AntiVirus, LiveUpdate also downloads a What’s New file, which is placed on the desktop.

View the LiveUpdate Summary

The LiveUpdate Summary dialog box displays a summary of the activity and a list of products updated in this session.

Some updates require that you restart your computer. When this recommendation appears in the summary description, the Restart button is available.

To restart after a LiveUpdate session

- ❖ In the LiveUpdate Summary window, click **Restart**.

Read the LiveUpdate What's New file

LiveUpdate places a What's New file on the desktop. This contains details of what files were updated by LiveUpdate.

To do this	Follow these steps
Read the What's New file.	Double-click the file.
Close the What's New file.	Press Command-Q .
Delete the What's New file.	Drag it to the Trash.

Empty the Trash after a LiveUpdate session

After you update program files, LiveUpdate moves the older, discarded files to the Trash. If you haven't already restarted after updating, you might get a message that these files are in use. After you restart your computer, you can empty the Trash.

Check product version numbers and dates

The LiveUpdate window displays the version numbers and dates of the most recent updates.

You can also check the version numbers and dates in the product's About box, accessible from the product menu in Mac OS X v10.1, or the Apple menu in Mac OS 8.1–9.x.

To view an application's About box

- 1 Start your product.
- 2 Do one of the following:
 - In Mac OS X v10.1, on the product menu, click **About <product name>**.
 - In Mac OS 8.1–9.x, on the Apple menu, click **About <product name>**.

The About box lists version number and copyright dates.
- 3 When you've finished viewing the About box, click **OK**.

Schedule future updates

- ! You can schedule an update in both Mac OS X v10.1 and in Mac OS 9. The operating system in which the update is scheduled must be running for the scheduled event to occur. In addition, in Mac OS X v10.1, the user who scheduled the event must be logged on. If these conditions are not true, the event occurs the next time the operating system is started, with the correct user logged on, if applicable.

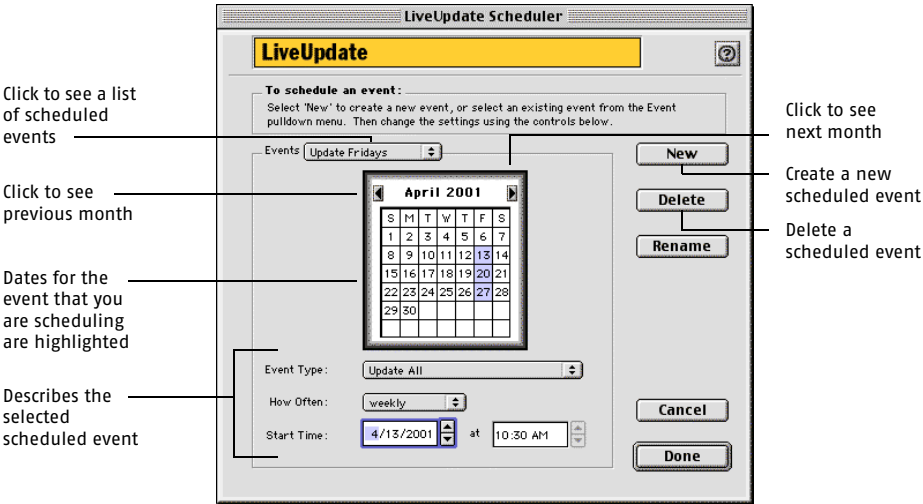
You can set up events to run at a scheduled time, without your participation. If your Macintosh is turned off during the time an event should take place, the event occurs the next time that you start your Macintosh. Before scheduling an update, test it once manually. See [“Update everything now”](#) on page 81, and [“Customize a LiveUpdate session”](#) on page 81.

Schedule future updates in Mac OS 8.1–9.x

You can add, edit, and delete scheduled events in Mac OS 8.1–9.x.

To schedule future updates in Mac OS 8.1–9.x

- 1 In the LiveUpdate main window, click **Schedule Future Updates**.



- 2 Click **New**.
- 3 In the Scheduled Event name text box, type a descriptive name, for example, Update Fridays.
- 4 Click **OK**.
- 5 In the Event Type list, specify the item to update.
Your choices are:

Update All	Updates all installed products.
Update <Product Name>	Updates the product that you select. The names of installed Symantec products appear in the list.

- In the How Often list, specify when the update should occur.
Your choices are:

once	Runs the event one time only on the indicated day and time
daily	Runs the event daily at the indicated time
weekdays	Runs the event every weekday, Mondays through Fridays, at the indicated time
weekly	Updates once a week on the specified day and at the specified time
monthly	Runs the event monthly at the indicated time
disabled	Never runs the event

The days on which the updates occur appear highlighted in the calendar.

- Finish scheduling the update by typing the time and date:
 - Click the **Hour** text box and use the arrow keys to set the start hour.
 - Click the **Minute** text box to set the start minute.
- Click **Done**.

To edit a scheduled event

- In the LiveUpdate main window, click **Schedule Future Updates**.
- In the Events list, click the scheduled event that you want to change.
- Make your changes.
For a description of the scheduling options, see [“Schedule future updates in Mac OS 8.1–9.x”](#) on page 83.
- To change the event name, click **Rename** and type a new name.
- Click **Done**.

To delete a scheduled event

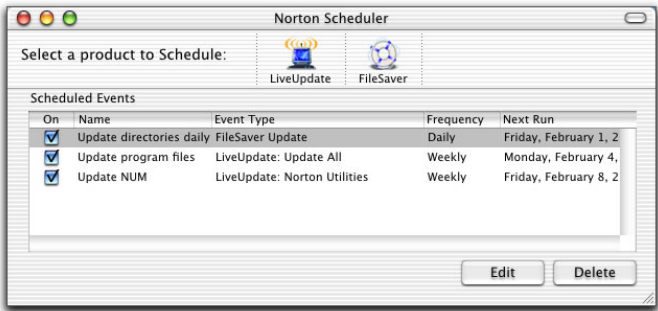
- In the LiveUpdate main window, click **Schedule Future Updates**.
- In the Events list, select the scheduled event to delete.
- Click **Delete**.
- Click **Yes** to verify deletion.
- Click **Done**.

Schedule future updates in Mac OS X v10.1

You can add, edit, delete, and disable scheduled events in Mac OS X. You can also reset all scheduled events to the default events and settings.

To schedule future updates in Mac OS X

- 1
- In the LiveUpdate main window, click **Norton Scheduler**.



- 2
- Click **LiveUpdate**.



- 3 Type a descriptive name for the LiveUpdate task, for example, Update Fridays.
- 4 In the Choose a product to update list, specify the item to update. Your choices are:

All Products	Updates all installed products.
<Product Name>	Updates the product that you select. The names of installed Symantec products appear in the list.

- 5 In the Set a Frequency list, specify when the update should occur. Your choices are:

Monthly	Runs the event monthly on the indicated date and time. You can choose a date from the first of the month to the twenty-eighth.
Weekly	Updates once a week on the specified day and at the specified time.
Daily	Runs the event daily at the indicated time.
Annually	Runs the event each year on the indicated day and time. You can schedule the event up to one year in advance.

- 6 Close the Add LiveUpdate Task window.
- 7 In the Save LiveUpdate Task dialog box, click **Save**.

Edit scheduled events

You can make changes to the events that you schedule.

To edit a scheduled event

- 1 In the LiveUpdate main window, click **Norton Scheduler**.
- 2 In the Scheduled Events list, select the scheduled event that you want to change.
- 3 Click **Edit**.
- 4 Make your changes.
For a description of the scheduling options, see [“Schedule future updates in Mac OS X v10.1”](#) on page 86.
- 5 To change the event name, type a new name in the name field.
- 6 Close the Add LiveUpdate Task window.
- 7 In the Save LiveUpdate Task dialog box, click **Save**.

Delete scheduled events

You can delete events that you no longer want.

To delete a scheduled event

- 1 In the LiveUpdate main window, click **Norton Scheduler**.
- 2 In the Scheduled Events list, select the scheduled event that you want to delete.
- 3 Click **Delete**.
- 4 In the verification box that appears, click **Delete** to verify that you want to delete the event.

Disable scheduled events

You can disable scheduled events without deleting them in case you want to enable them later.

To disable a scheduled event

- 1 In the LiveUpdate main window, click **Norton Scheduler**.
- 2 In the Scheduled Events list, uncheck the event that you want to disable.
- 3 To enable the event, check it again.

Reset scheduled tasks

If you want to delete all scheduled tasks that you have added and reset the scheduled tasks to the original default tasks, use Reset Scheduled Tasks.

The default tasks that are set depend on which Symantec products you have installed. All default tasks can be edited to change their schedules.

Product	Default task
Norton Personal Firewall	None.
Norton AntiVirus	Monthly LiveUpdate task to check for new virus definitions. Set to run on the first of each month.
Norton Internet Security	Monthly LiveUpdate task to check for new virus definitions. Set to run on the first of each month.
Norton Utilities	Daily FileSaver scan to update your disk directory information. Set to run at noon.
Norton SystemWorks	Monthly LiveUpdate task to check for new virus definitions. Set to run on the first of each month. Daily FileSaver scan to update your disk directory information. Set to run at noon.

To reset scheduled tasks

- 1 In the LiveUpdate main window, click **Norton Scheduler**.
- 2 On the Norton Scheduler menu, click **Reset Scheduled Tasks**.
- 3 In the verification window, click **Reset**.



21

Norton AntiVirus

Protecting disks, files, and data from viruses

5

Viruses activate when you launch an infected program, start your computer from a disk that has infected System files, access a floppy disk or other *removable media* (disks that can be removed, such as floppy disks, disk cartridges, CDs, and Zip disks) that has infected desktop files, or access a document containing a macro virus.

Although Norton AntiVirus Auto-Protect monitors your computer for viruses by scanning files when they are opened or moved, scan all disks or removable media before you use them, as Auto-Protect might not catch viruses that have infected files that haven't been opened, moved to a SafeZone, or scanned. With Norton AntiVirus you can scan any file, folder, or disk for viruses.

Scan disks, folders, and files

You can start the Norton AntiVirus main program or, in Norton AntiVirus for Mac OS 8.1–9.x, use the contextual menu, to scan your disks.

In Mac OS X v10.1, Norton AntiVirus can scan only those files to which you have access permission. Even if you are logged on as an administrator, there are certain System files and directories that cannot be scanned. Those files can be scanned only if you are logged on with root access. However, unless you log on as root when you work on your computer, there is almost no chance that those files could be infected, as Mac OS X v10.1 is set by default to have the root account disabled.

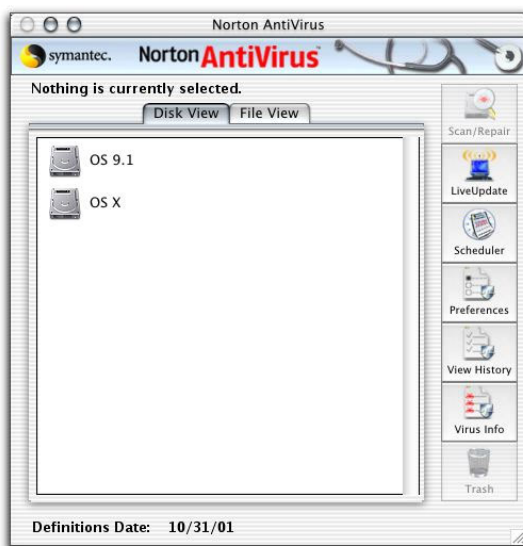
See ["About Compression Preferences"](#) on page 135.

If you never log on as root, performing scans while logged on as an administrator catches any viruses that the computer might have acquired. If you log on as root, perform scans under the same logon. You can also restart from the CD and scan using Norton AntiVirus for Mac OS 8.1–9.x to avoid access problems and permissions errors.

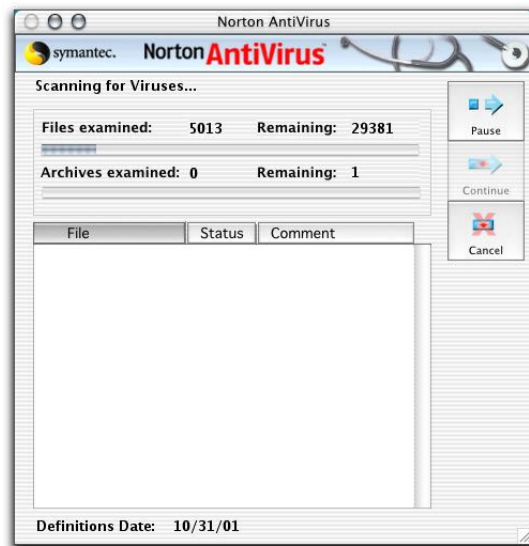
You can customize the way that Norton AntiVirus performs scans. Norton AntiVirus can check compressed files for viruses, but not encrypted files. Encrypted files, which normally require a password to open them, must be decrypted before you scan them.

To scan disks, folders, and files for viruses

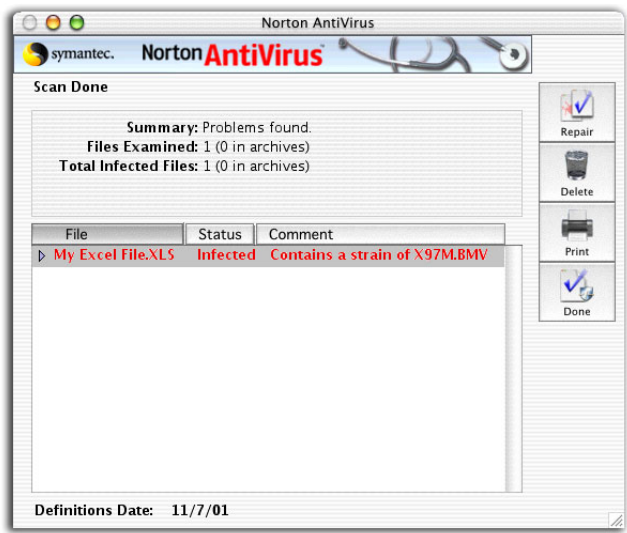
- 1 Start Norton SystemWorks.
- 2 In the Norton SystemWorks main window, click Norton AntiVirus.



- 3 In the Norton AntiVirus main window, select the disks to scan.
 - View the contents of the disk by clicking the triangle next to the disk name.
 - On the File View tab, select folders or files.
- 4 Click **Scan** or **Scan/Repair**.
 In Mac OS 8-9.x if the Virus Scanning Preferences are not set to repair infected files automatically, the button name is Scan. When the scan is complete, the results are shown in the window. The top pane of the window shows a summary of the scan. The bottom pane of the window lists any files that were found to have problems.



- 5
- To view details of a selected file, click the triangle beside the file.



If problems are found during a scan

Norton AntiVirus is designed to help keep your computer virus-free. In most cases, an infected file can be repaired automatically. In some cases, you may need to take further action.

In Mac OS 8.1–9.x, if a virus is found and Auto-Repair is enabled, the file is automatically repaired. In Mac OS X v10.1, the file is automatically repaired if you have Automatic Repair On checked on the General tab of the Preferences window.

See “If Norton AntiVirus can’t repair a file” on page 110.

If the virus is not repaired, the file can be removed. Removing a file prevents it from reinfecting your computer or damaging other files.

Scan email attachments

Norton AntiVirus provides automatic scanning of email messages. Because Norton AntiVirus for Mac OS X v10.1 scans all files closed with write permission, email attachments are scanned.

See “Access Custom Preferences in Mac OS 8.1–9.x” on page 120.

If you are using Norton AntiVirus for Mac OS 8.1–9.x, email attachments are automatically scanned if you have checked that option in Preferences. In addition, if your email program is one that Norton AntiVirus supports,

Auto-Protect automatically scans all email attachments when they are downloaded.

To determine if your email program is supported

- 1 In your Internet browser, navigate to the Symantec Service and Support Web site at: www.symantec.com/techsupp/
- 2 On the Service and Support Web page, click **I am a home / small business user**.
- 3 On the home computing and small business page, select **Norton AntiVirus for Macintosh** as the product, **8.x** as the version, then click **continue**.
- 4 On the stage one page, select **solving a software issue** as what you need help with, **to solve some other software issue** as what you want, then click **continue**.
- 5 On the stage two page, click **continue to knowledge base**.
- 6 In the search field, type **email clients**.
- 7 Click **search**.
- 8 On the stage three page under search results, click **Which email clients does NAV for Macintosh 8.0 support for email scanning?**

Decontamination procedures

If you think that a virus has infected your computer and you are afraid that there might be a virus in memory, use the Norton SystemWorks for Macintosh CD to restart your computer and remove the virus. For detailed instructions see “[Start from the CD](#)” on page 33 and “[Scan for viruses](#)” on page 35.

View and print scan history

Norton AntiVirus automatically saves a report of each scan. You can view and print these scan results at the end of a scan. You can also review previous scans in the History file.

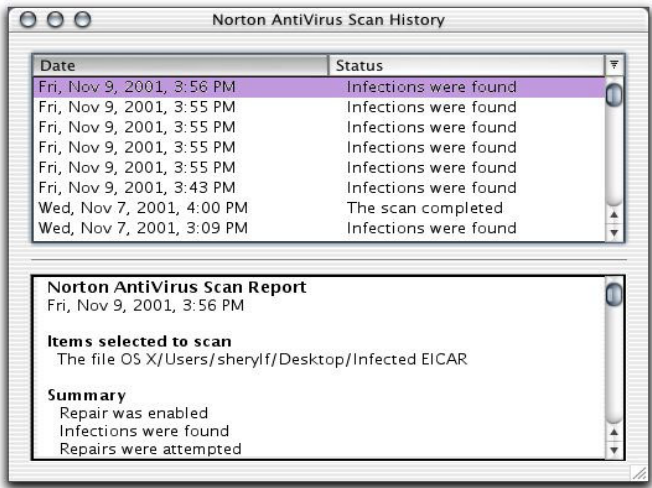
Save and print scan reports

See ["About Report Preferences"](#) on page 133.

At the end of a scan, you can save the scan results in a data file. You can specify the data file format in Preferences. Saving a scan report in a specific file format relates it to a word processing program. You can print a scan report from the Scan Results window or from the Scan History window.

To select a scan report to save or print

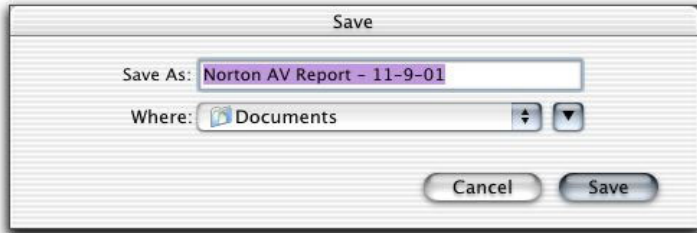
- 1 In the Norton AntiVirus main window, click **View History**.



- 2 In the Norton AntiVirus Scan History window, in the top pane, select the report to view.
The details appear in the lower pane of the window.

To save the selected scan report

- 1 On the File menu, click **Save Report As**.
- 2 In the dialog box that appears, specify a name and location for the file. The default file name is <Untitled> Scan Report.



- 3 In the Save dialog box, click **Save**.

To print the selected scan report

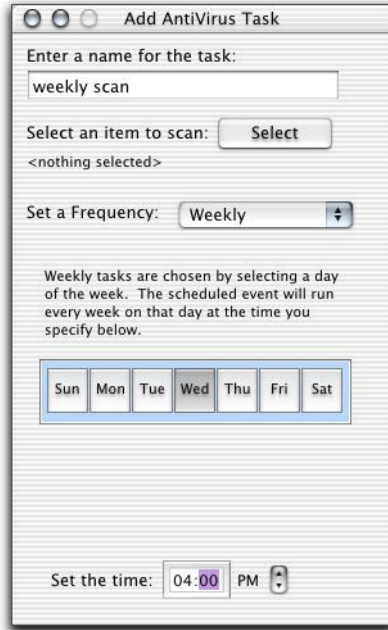
- 1 Do one of the following:
 - If you are still viewing the scan results, click **Print**.
 - If you have selected the report in the Scan History window, on the File menu, click **Print Report**.
- 2 In the Print dialog box, select the printing options for the report.
- 3 Click **Print**.

Add scheduled Norton AntiVirus scans

You can add scheduled scans of all or a part of your computer for your convenience. The scan results of a spontaneous or scheduled scan are displayed as scan results in the main Norton AntiVirus window.

To add scheduled Norton AntiVirus scans

- 1 In the Norton Scheduler window, click **AntiVirus**.
- 2 In the Add AntiVirus Task window, type a descriptive name for the task, for example, weekly scan.



- 3 To select an item to scan, click **Select**.
- 4 In the Select a scan target window, select the portion of your computer that you want to scan.
- 5 Click **Open**.

- In the Set a Frequency list, specify when the scan should occur.
Your choices are:

Monthly	Runs the event monthly at the indicated date and time. You can select a date from the first of the month to the twenty-eighth.
Weekly	Updates once a week on the specified day and at the specified time.
Daily	Runs the event daily at the indicated time.
Annually	Runs the event each year on the indicated day, and at the indicated time. You can schedule the event up to one year in advance.

- Close the Add AntiVirus Task window.
- In the Save AntiVirus Task dialog box, click **Save**.

To make virus prevention as easy as possible, schedule these activities:

More information	Activity
See "Add scheduled Norton AntiVirus scans" on page 99.	Virus scans to occur at specified times
See "Schedule future updates" on page 83.	Automatic updates of virus definitions with LiveUpdate

If your Macintosh is turned off during the time that an event should take place, the event occurs the next time that you start your Macintosh.

Edit scheduled events

You can make changes to the events that you schedule.

To edit a scheduled event

- In the Scheduled Events list, select the scheduled event that you want to change.
- Click **Edit**.
- Make your changes.
- To change the event name, in the name field, type a new name.
- Close the Edit Task window.
- In the Save Task dialog box, click **Save**.

Delete scheduled events

You can delete scheduled events that you no longer want.

To delete a scheduled event

- 1 In the Scheduled Events list, select the scheduled event that you want to delete.
- 2 Click **Delete**.
- 3 In the verification box that appears, click **Delete** to verify that you want to delete the event.

Disable scheduled events

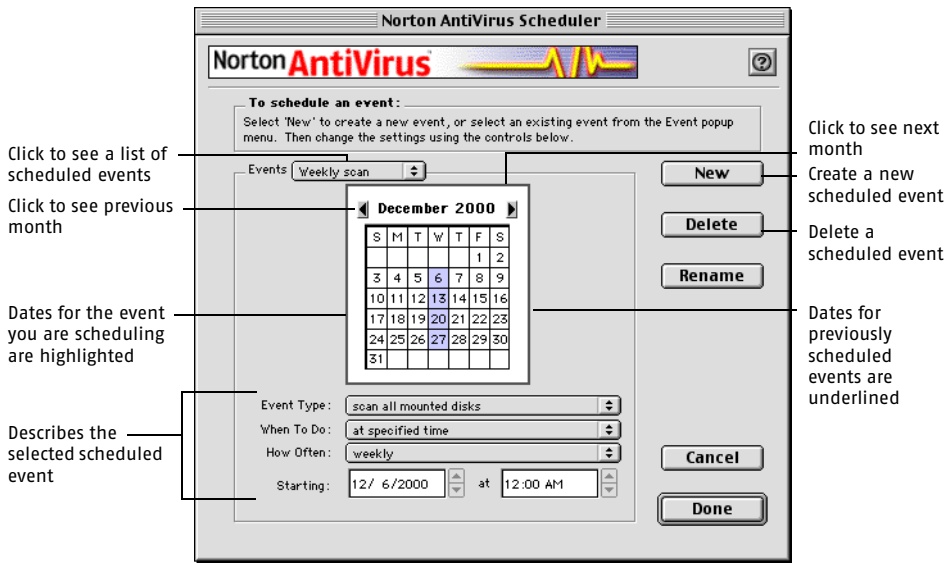
You can disable scheduled events without deleting them in case you want to enable them later.

To disable a scheduled event

- 1 In the Scheduled Events list, uncheck the event that you want to disable.
- 2 To enable the event, check it again.

To schedule a scan in Mac OS 8.1–9.x

- 1 On the Tools menu, click **Scheduler**.



- 2 In the Norton AntiVirus Scheduler window, click **New**.
- 3 In the dialog box that appears, type the event name in the text field.
- 4 Click **OK**.
- 5 In the Event Type list, specify the item to scan.
Your choices are:

Scan System Folder	Scans the System folder on the startup disk
Scan System Disk	Scans the entire startup disk
Scan All Local Disks	Scans all disks physically connected to your computer
Scan All Network Disks	Scans all network drives mounted at the time that the scan runs
Scan All Mounted Disks	Scans all local and network drives mounted at the time that the scan runs

- 6
- In the When To Do list, specify when the scan should occur.
Your choices are:

At Specified Time	Lets you decide the time at which the scan occurs
At Startup	Scans for viruses each time that your computer starts up
At Shutdown	Scans for viruses each time that your computer shuts down

- 7
- In the How Often list, specify the frequency of the scan.
Your choices are:

Disabled	Saves all settings for the event, but never runs it
Once	Runs the event one time only at the indicated time
Hourly	Runs the event hourly at the indicated time
Daily	Runs the event daily on the indicated day
Weekdays	Runs the event every weekday, Mondays through Fridays, at the indicated time
Monthly	Runs the event monthly at the indicated time
Always	Always runs the event

- 8
- Finish scheduling the scan by typing the correct time and date information.
This option is not available if the scan occurs at startup or shutdown.
- 9
- Click **Done**.

Perform a scan from the command line

Use the Command Line Scanner to run scans from the command line and to obtain scan reports and save them in your specified destination. Create scripts to be incorporated into other UNIX maintenance scripts.

Following are a few examples of how you can customize the features of Command Line Scanner to run the scans that you want.

- `navx/`
To scan your system drive with default options
- `navx -a -r /Users/steve/`
To scan, without repairing, the files in the home folder of user steve, and report the status of all files
- `navx -ar /Users/steve/`
To scan, without repairing, the files in the home folder of user steve, and report the status of all files
- `navx -o ~/myReportFile /tmp`
To scan the files in /tmp, and store the report in your home folder
- `navx -a -o ~/myReportFile /tmp > scansummary.log`
To scan the files in /tmp, store the complete report in your home folder, and the summary in a log

To scan a file using the Command Line Scanner

- 1 Open Terminal.
- 2 At the prompt, type **navx**.
- 3 Type the command that you want.
Your options are:

-a	Reports all files scanned regardless of damage or threat.
-f	Forces the scan to run even if the output file specified with -o cannot be created or opened.
-h	Reports on files that were inaccessible for scanning.
-q	Quiet, only the summary text is displayed on the screen.
-r	Does not repair files with defined threats.
-o <output filename>	Output appends to the file <output filename>. If -q is also selected, only the summary appears on the screen, but the full report is appended to <output filename>.

- 4 Enter the file you want to scan.
- 5 Press **Enter**.



What to do if a virus is found

6

If Norton AntiVirus reports a problem, find the section that best describes the problem, then follow the instructions provided.

The message may not be discussed in this chapter. For more information about other messages, see [“Mac OS 8.1–9.x and Mac OS X v10.1 messages”](#) on page 269.

If Auto-Protect finds a virus

When a virus is found while Norton AntiVirus Auto-Protect is running, an alert displays what happened and what your options are.

Auto-Protect alerts you to any virus activity, whether the file is repaired automatically or not. Read the message carefully to determine whether you need to do anything.

If Auto-Protect finds a virus and repairs the file

When Norton AntiVirus Auto-Protect reports that it repaired an infected file, you don't have to do anything.

Even when Auto-Protect has repaired the infected file, ensure that no other viruses exist on your computer by scanning with Norton AntiVirus.

If Auto-Protect finds a virus but does not repair the file

See [“About Scan Preferences”](#) on page 125.

If you have set the Auto-Repair Scan preference to off, Auto-Protect informs you of infected files, but does not repair them.

To handle an infected file that has been detected but not repaired

- 1 Read the entire message.



- 2 Look for words that identify the type of problem.
- 3 Select the button of the action that you want to take.
Repairing is always the best choice. It eliminates the virus and restores the infected item automatically.

If Auto-Protect finds a virus and cannot repair the file

Auto-Protect may not be able to repair an infected file, whether or not you have requested Auto-Repair.

To delete an infected file that has been detected but cannot be repaired

- 1 In the Auto-Protect alert, click **Yes** to run Norton AntiVirus and scan the file or folder containing the virus. See [“Scan disks, folders, and files”](#) on page 93.
- 2 In the scan window, you can view more details about the infected file. See [“If Norton AntiVirus can’t repair a file”](#) on page 110.
- 3 In Mac OS 8.1–9.x, take further action as indicated in the scan window.

If removable media is infected

In Mac OS 8.1–9.x, when Standard Protection is set, Auto-Protect ejects infected removable media. Bypass this setting by holding down the Shift key while inserting the media.

To repair the infected media, use Norton AntiVirus to scan and repair it.

To repair infected removable media

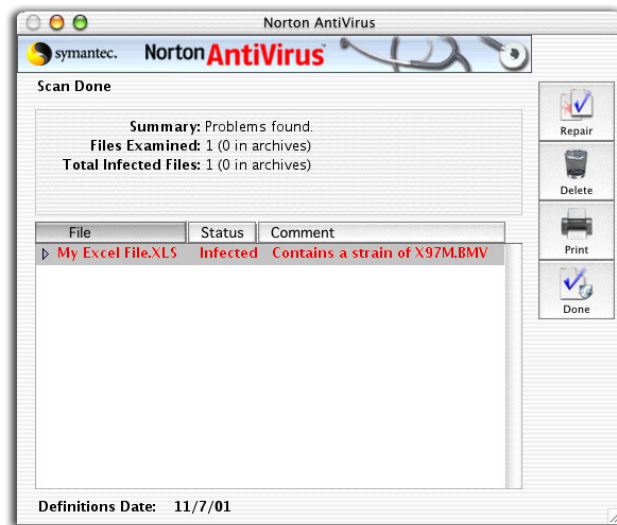
- 1 Start Norton SystemWorks.
- 2 In the Norton SystemWorks main window, click **Norton AntiVirus**.
- 3 Insert the media while pressing **Shift**.
- 4 In the Norton AntiVirus main window, select the media to scan.
- 5 Click **Scan** or **Scan/Repair**.

If a virus is found while scanning

If you are scanning with Norton AntiVirus and a virus is found, a Problem found alert appears in the scan window. Usually, infected files are repaired automatically and you don't have to do anything else. To determine if the file was repaired or if you need to take further action, check the status of the file in the scan window.

To check the status of infected files in the scan window

- 1 In the Scan Results window, select the infected file.
- 2 Click the triangle to the left of the file to view more information about the file.

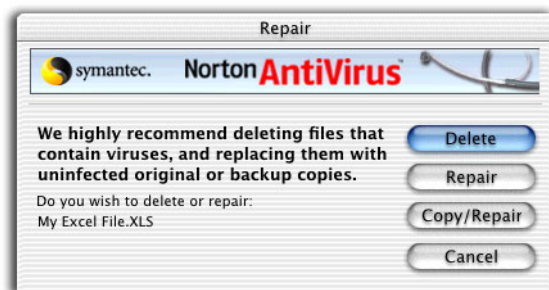


Repair infected files

If an infected file in the scan window was not repaired because Auto-Repair was turned off in Preferences, initiate the repair yourself.

To repair infected files

- 1 In the scan results list, select the files to repair.
- 2 Click **Repair**.



- 3 In the Repair dialog box, do one of the following:
 - Click **Repair**.
 - Click **Copy/Repair** if you want to create a backup copy of the file before it is repaired.
- 4 After repairing all infected files, scan your disks again to verify that there are no other infected files.
- 5 Check the repaired files to make sure that they function properly. For example, if you repaired a word processing program, start it, edit a file, save a file, and so on to make sure that it has been repaired correctly.

If you chose to have Norton AntiVirus make a backup copy of the infected file before you repaired it, delete the backup file once you are certain the repair worked correctly. The infected backup copy of the file is stored in the same directory as the original file. (The backup copy is named infected <file name> where <file name> is the name of the original file.)

If Norton AntiVirus can't repair a file

See "Check product version numbers and dates" on page 82.

If Norton AntiVirus cannot repair the infected file, first make sure you have scanned with the latest virus definitions. If you are not sure that you have the latest definitions, use LiveUpdate. Then scan your hard disk with the latest virus definitions.

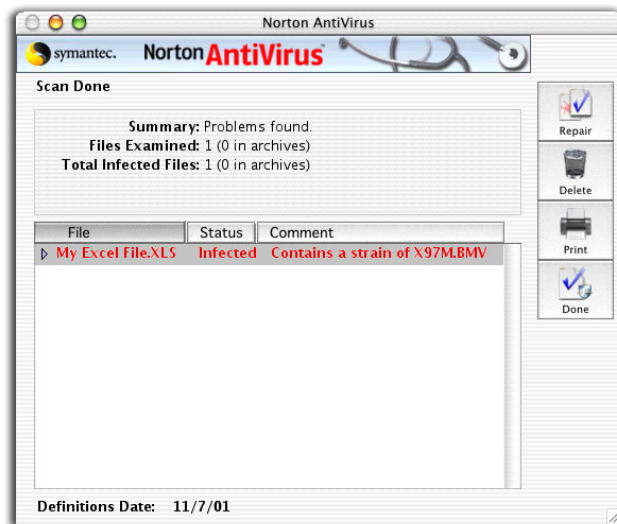
Delete infected files

Sometimes viruses damage a file beyond repair. If Norton AntiVirus finds an unrepairable file, delete the infected file and replace it with an uninfected backup copy.

You can't delete an infected file from an Auto-Protect alert. Delete it from the Norton AntiVirus scan window.

To delete an infected file

- 1 When prompted by the Auto-Protect alert to scan with Norton AntiVirus, click **Yes**.
Norton AntiVirus opens and scans the infected file. The Norton AntiVirus scan results window displays the infected file.



- 2 Select the infected file.
- 3 Click **Delete**.
- 4 Click **OK** to confirm the deletion.
The Status column in the scan window shows that the file has been deleted.

If you receive a Virus-like Activity alert in Mac OS 8.1–9.x

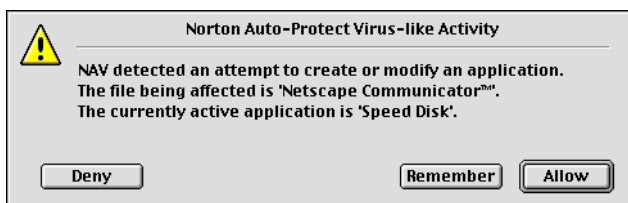


Virus-like Activity alerts are not generated in Norton AntiVirus for Mac OS X.

See [“About Prevention Preferences”](#) on page 128.

A virus-like activity is an activity that viruses often perform when spreading or damaging your files. A Virus-like Activity alert does not necessarily mean that a virus is present. You can decide whether the operation is valid, for example, when you are installing software or decompressing a compressed archive.

When a virus-like activity is detected, an alert appears.



See [“Keeping current with LiveUpdate”](#) on page 77.

Make sure that you have the most recent virus definitions file. If the application contains an unknown virus, the newest virus definitions file may have a definition for it.

To respond to a Virus-like Activity alert

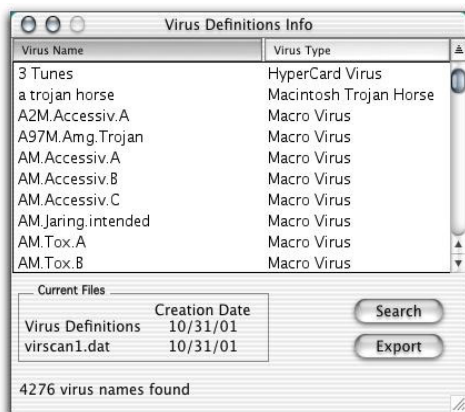
❖ Select one of the following:

Allow	Allow the activity if the message describes a valid activity for the application that you are running, for example, if you are changing a system setting. This action is the default selection.
Deny	Deny the activity if it isn't related to what you are trying to do. If the Deny button is unavailable, the virus-like activity has proceeded too far for Norton AntiVirus to stop without causing damage or crashing the system. If this happens, note the file involved and the currently active application before continuing, then scan both files to check for known viruses.
Remember	<p>Remember the activity if you don't want the alert to appear again. If the activity is valid for the application that you are running and you don't want Norton AntiVirus to alert you when the same application performs the same activity in the future, click Remember.</p> <p>This activity is added to the Exceptions List. Future attempts to perform the same action by the same application will not trigger the activity alert. See "Manage virus-like activities" on page 140.</p>

Look up virus names and definitions

You can look up a virus name from within the Norton AntiVirus application. The Virus Definitions Info dialog box lists the viruses in the current virus definitions file. To make sure that you have the latest virus

definitions, run LiveUpdate. You can export the list to a text file. You can also search the list for a specific virus.



To look up virus names

- ❖ Do one of the following:
 - In Norton AntiVirus for Mac OS 8.1–9.x: On the Tools menu, click **Virus Definitions Info**.
 - In Norton AntiVirus for Mac OS X v10.1: On the Window menu, click **Virus Info**.

To export the virus list to a text file

- 1 In the Virus Definitions Info dialog box, click **Export**.
- 2 Specify where to save the file.
- 3 Open the exported text file in a word processing program to print it.

To search for a specific virus name

- 1 In the Virus Definitions Info dialog box, click **Search**.
- 2 In the Virus Name Contains field, type the name or part of the name of the virus.
- 3 Click **Find**.

Look up virus definitions on the Symantec Web site

Because of the large number of viruses, the Virus Definitions Info file does not include descriptions of each virus. The Symantec Security Response Web site contains a complete list of all known viruses and related malicious code, along with descriptions.

To look up virus definitions

- 1 Point your browser to the Symantec Security Response Web site at:
<http://securityresponse.symantec.com>
- 2 Click the **Virus Encyclopedia** link.
- 3 Do one of the following:
 - Type a virus name for which to search.
 - Scroll through the alphabetical list to locate a virus.
- 4 Select a virus to read its description.



Customizing Norton AntiVirus for Macintosh

7

You can change Norton AntiVirus settings to fit your work environment.

For settings that govern the behavior of scanning, Norton AntiVirus Auto-Protect, and related activities, use the Preferences dialog box.

In Mac OS 8.1–9.x, the Tools menu has additional settings for the Scheduler and the Exceptions List. The Preferences menu has additional settings for Menu Security and Turn Auto-Protect Off.



Norton AntiVirus for Mac OS X v10.1 does not have a Tools menu, as the options contained on those menus do not apply.

About General Preferences

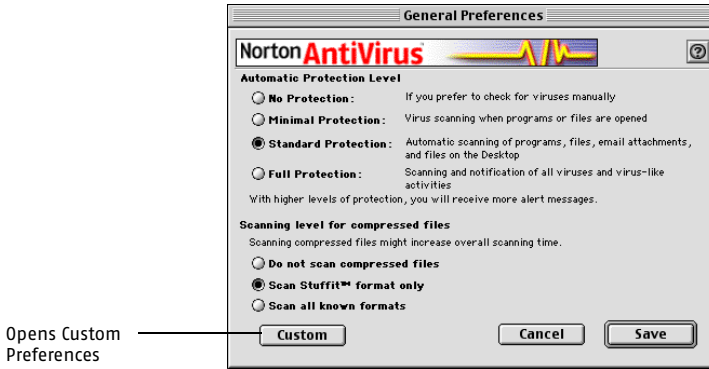
You can change the General Preferences that were set up when you installed Norton AntiVirus for Macintosh.

Set General Preferences in Mac OS 8.1–9.x

You can customize levels of prevention and compressed file scanning with the General Preferences dialog box. You can customize more features to a greater level of detail with the Custom Preferences dialog box.

To set Norton AntiVirus General Preferences

- 1 In the Norton AntiVirus main window, click **Preferences**.



- 2 If the Custom Preferences dialog box appears, click **General**.
- 3 In the General Preferences window, set the protection level.
- 4 To customize Preference settings further, click **Custom**. See [“Access Custom Preferences in Mac OS 8.1–9.x”](#) on page 120.

Set General Preferences in Mac OS X v10.1

Select your settings for Auto-Repair, Scan Results, and Save Report Format in the General Preferences window.

To set Norton AntiVirus General Preferences in Mac OS X v10.1

- 1 In the Norton AntiVirus main window, click **Preferences**.



- 2 In the General window, select the preferences that you want. Your choices are:

Repair	Determines the action that Norton AntiVirus performs when it encounters a virus during a scan. You can choose to have Norton AntiVirus repair the infected file automatically or report the infected file without repairing it.
Scan Results	Determines what appears on the Scan History report. You can have only files with problems appear on the report, or all scanned files. (When All examined files is selected, scanning takes more time.)
Do not list permissions errors when scanning	In Mac OS X v10.1, Norton AntiVirus can scan only those files to which you have access permission. If this option is not selected, Norton AntiVirus lists each file it could not scan because it was denied access.
Save Report Format	Application that defines the format in which you want reports saved.

- 3 Close the window to save your changes.

About Custom Preferences

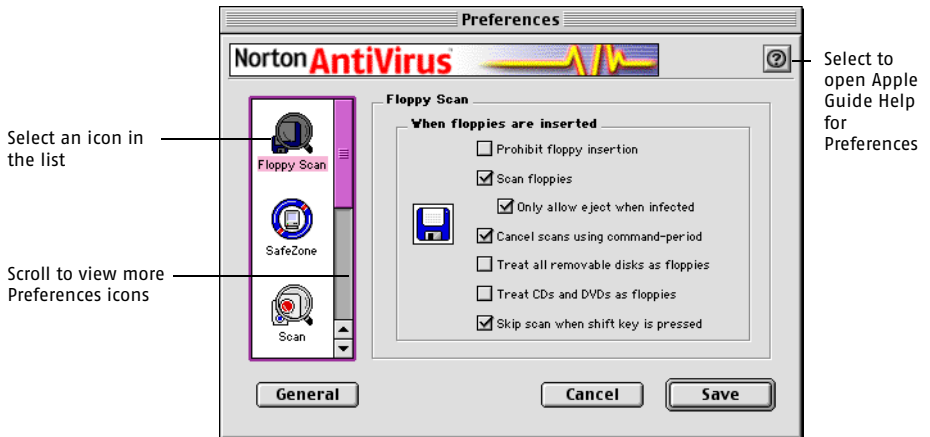
You can change a wide range of settings for the way Norton AntiVirus Auto-Protect and the Norton AntiVirus program behave.

Access Custom Preferences in Mac OS 8.1–9.x

The Custom Preferences dialog box lets you configure scanning, Auto-Protect behavior, removable media scanning, alert types, SafeZone areas, virus-like activities, compression file types, and report file types. The left side of the Preferences dialog box contains sets of options that you can customize.

To access Custom Preferences

- 1 In the Norton AntiVirus main window, click **Preferences**.
- 2 If the General Preferences dialog box appears, click **Custom**.



- 3 In the Custom Preferences dialog box, select an icon.

Floppy Scan	Determines how Norton AntiVirus Auto-Protect handles floppy disks and other removable media. See “About Floppy Scan Preferences” on page 122.
SafeZone	Determines what areas of your computer are protected by Auto-Protect. See “About SafeZone Preferences” on page 123.
Scan	Determines how Auto-Protect and the Norton AntiVirus program perform scans, and whether Auto-Protect alerts you to changes in program files. See “About Scan Preferences” on page 125.
Prevention	Customizes how Auto-Protect monitors virus-like activities. See “About Prevention Preferences” on page 128.
Alert	Customizes the types and durations of Auto-Protect alert messages. See “About Alert Preferences” on page 131.
Report	Identifies a file format for Activity Logs, and chooses which activities to record in the log. See “About Report Preferences” on page 133.
Compression	Chooses which types of compressed files you want to scan. See “About Compression Preferences” on page 135.

- 4 Make the changes to the Preferences settings.
- 5 Click **Save** when you are done.

Access Custom Preferences in Mac OS X v10.1

The Preferences dialog box contains three additional panes used to customize Norton AntiVirus. You can specify how you want Auto-Protect to run. You can choose the types of compression files you want Norton AntiVirus to scan. You can also set Norton AntiVirus to send you a notice when your virus definitions are out of date.

About Floppy Scan Preferences

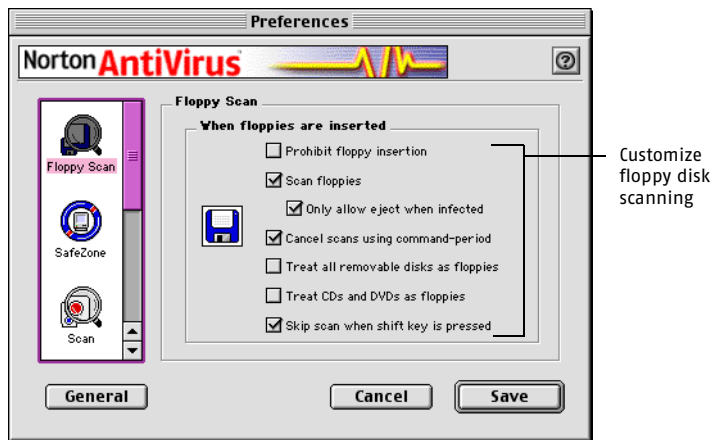
A common way for a virus to enter your computer is through floppy disks or other removable media. To prevent this from happening, Auto-Protect scans these items each time they are inserted into your computer.



In Mac OS X v10.1, when Auto-Protect is on, all files on Hierarchical File System (HFS) Standard and HFS Plus Extended disks (which are all standard Mac-formatted disks) are scanned when they are created or modified. This also applies to removable media when they are mounted, if they are HFS or HFS Plus formatted.

To set Floppy Scan Preferences in Mac OS 8.1–9.x

- 1 In the Preferences dialog box, click the **Floppy Scan** icon.



- Specify the action that Norton AntiVirus should perform when a floppy disk is inserted.
Your choices are:

Prohibit floppy insertion	Ejects all floppy disks. Norton AntiVirus does not allow access to floppy disks. This option must be unchecked to repair an infected floppy disk. If Treat all removable disks as floppies is also checked, all removable media is ejected.
Scan floppies	Scans floppy disks each time that they are inserted.
Only allow eject when infected	Automatically ejects floppy disks that contain infected files.
Cancel scans using command-period	Lets you stop an in-progress floppy disk scan.
Treat all removable disks as floppies	Causes all removable media, such as Jaz and Zip cartridges, to be scanned the same way as floppy disks.
Treat CDs and DVDs as floppies	Causes all nonwritable media to be treated like floppy disks.
Skip scan when shift key is pressed	Lets you skip a floppy scan by pressing Shift while inserting a floppy disk.

- Click **Save**.

About SafeZone Preferences

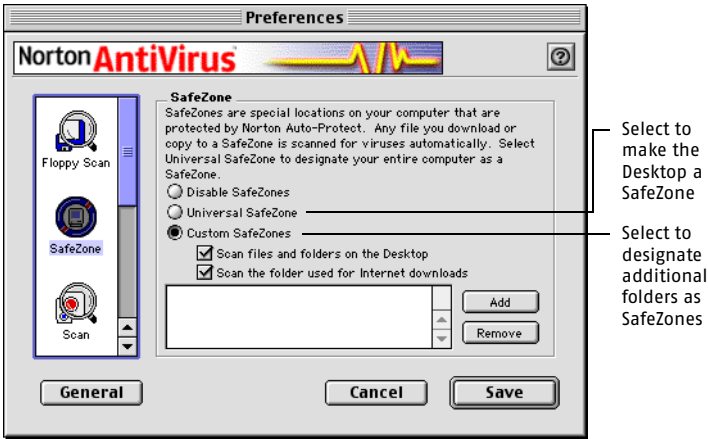
In Mac OS 8.1–9.x, you can set up as many SafeZones on your computer as you need. You can also use the SafeZone Preferences to specify certain Auto-Protect scanning behaviors.



In Mac OS X v10.1, your entire computer is considered a Universal SafeZone and as such, no customizing is needed.

To Set SafeZone Preferences in Mac OS 8.1–9.x

- 1 In the Preferences dialog box, click the **SafeZone** icon.



- 2 Specify the SafeZone settings.
Your choices are:

Disable SafeZones	Prevents Norton AntiVirus Auto-Protect from automatically scanning any files that are created, downloaded, or moved.
Universal SafeZone	Causes Norton AntiVirus Auto-Protect to scan every file that is downloaded in addition to files that are created anywhere on the computer.
Custom SafeZones	Lets you specify additional folders as SafeZones.
Scan files and folders on the Desktop	Causes Norton AntiVirus Auto-Protect to scan all files and folders on your Desktop.
Scan the folder used for Internet downloads	Causes Norton AntiVirus Auto-Protect to automatically scan files when they appear in the folder designated for all Internet downloads. Specify this folder using the Internet Control Panel (on Mac OS 8.5 and later) or the Internet Config utility program (Mac OS 8 or 8.1).

- 3 Click **Save**.

Add and remove Custom SafeZones

You can add as many SafeZones as are appropriate for your work habits. When you no longer need a SafeZone, you can remove it.

To add a Custom SafeZone

- 1 In the SafeZone Preferences dialog box, click **Custom SafeZones**.
By default, Scan files and folders on the Desktop is selected.
- 2 Click **Add**.
- 3 Select the folder or volume that you want to be a SafeZone.
The location appears in the list.
- 4 Click **Save**.
Auto-Protect will now scan the new SafeZones.

To remove a Custom SafeZone

- 1 In the SafeZone Preferences dialog box, click **Custom SafeZones**.
- 2 Select the SafeZone to be removed.
If a Custom SafeZone volume is unavailable, it is listed as Not found.
- 3 Click **Remove**.
- 4 Click **Save**.

About Scan Preferences

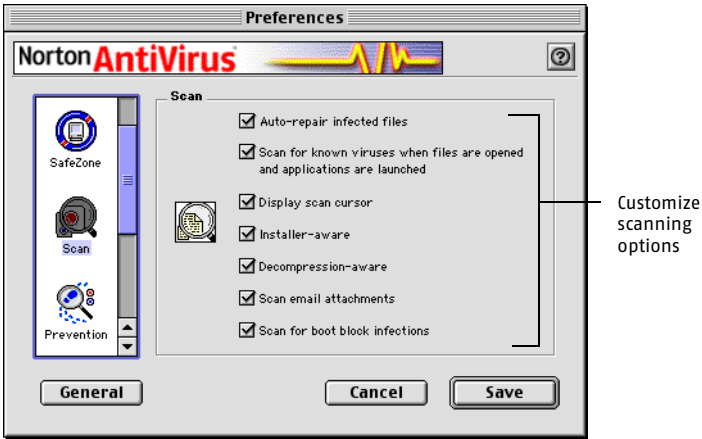
In Mac OS 8.1–9.x, the Scan options apply to all scans performed by the Norton AntiVirus program and by Norton AntiVirus Auto-Protect. This includes scans that you initiate, scheduled scans, automatic floppy disk scans, and scans that Norton AntiVirus initiates automatically (when you launch a program, for example).



In Norton AntiVirus for Mac OS X v10.1, you can set preferences for scans performed by Auto-Protect. When removable media are mounted they are added to the volumes protected as part of a Universal SafeZone, and thus those files (formatted for HFS and HFS extended) are scanned and safe.

To Set Scan Preferences in Mac OS 8.1–9.x

- 1 In the Preferences dialog box, click the **Scan** icon.



- 2 Select the scan options that you want.
Your choices are:

Auto-Repair infected files	Norton AntiVirus and Norton AntiVirus Auto-Protect automatically detect and repair infected files and inform you of the results.
Scan for known viruses when files are opened and applications are launched	Norton AntiVirus Auto-Protect scans programs when they are launched and scans documents when they are opened.
Display scan cursor	The scan cursor appears in place of the Macintosh pointer when Norton AntiVirus or Norton AntiVirus Auto-Protect are scanning files.
Installer-aware	Norton AntiVirus virus-like activity alerts are suppressed during installation of programs that use common installation programs.
Decompression-aware	Norton AntiVirus virus-like activity alerts are suppressed during decompression of compressed archives such as those created by StuffIt, Disk Doubler, Mac Binary, Zip and gzip, and other compression programs.

Scan email attachments	Norton AntiVirus Auto-Protect scans email attachments when they are downloaded. See “Scan email attachments” on page 96.
Scan for boot block infections	Norton AntiVirus scans the boot block for infections, and if configured, repairs them.

- 3 Click **Save**.

To set scanning preferences for Auto-Protect in Mac OS X v10.1


- 1 In the main Norton AntiVirus window, click **Preferences**.
- 2 In the General Preferences dialog box, click **Auto-Protect**.



- 3 In the Auto-Protect window, click the lock.
- 4 In the Authenticate dialog box, type your administrator name and password.
- 5 Click **OK**.
- 6 Select the automatic options that you want.
- 7 Close the window to save your changes.

About Prevention Preferences

See "If you receive a Virus-like Activity alert in Mac OS 8.1–9.x" on page 112.

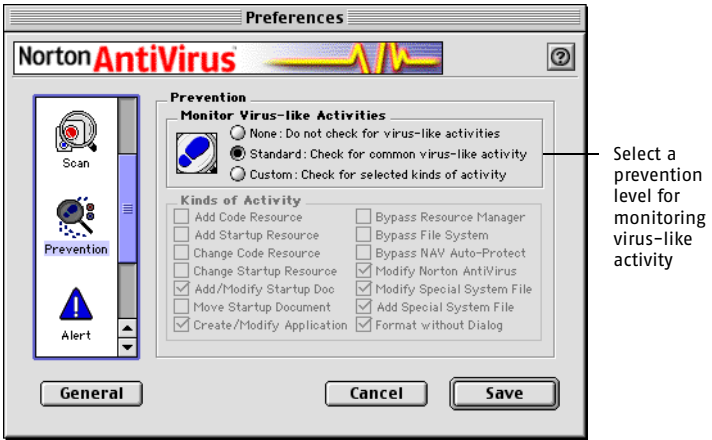
 In Mac OS X v10.1, virus-like activity is not monitored.

Use the Prevention options to set the level of virus-like activities monitored by Norton AntiVirus Auto-Protect. Although some programs perform these actions for valid reasons, Norton AntiVirus can monitor for these activities on the chance that an unknown virus is performing one of them. In most environments, the default Standard setting is sufficient.

If a virus-like activity is detected, it does not necessarily mean that a virus is performing the activity. You must decide whether to continue or not.

To set Prevention Preferences in Mac OS 8.1–9.x

- 1
- In the Preferences dialog box, click the **Prevention** icon.



- 2
- Select a prevention level for monitoring virus-like activities. If you select Custom, more activity types become active. Your choices are:

None	No virus-like activity monitoring.
Standard	Monitors programs for the most common virus behavior, such as adding code instructions to a program file. If you are not sure which option to choose, select Standard.
Custom	Lets you choose which virus-like activities Norton AntiVirus monitors.

- Select the custom options that you want.
Your choices are:

Add Code Resource	A program tries to add code instructions to another file. This is the most common way that viruses infect files.
Add Startup Resource	A program tries to add startup resource code to any file in the System folder. This is a common way viruses infect files.
Change Code Resource	A program tries to change a file's existing instructions. Programs rarely modify themselves. If this activity is detected, it can be an indication of a virus.
Change Startup Resource	A program tries to change code resources in a startup document. If this activity is detected, it may indicate a virus.
Add/Modify Startup Doc (default Standard option)	A program attempts to create a new startup document. Although this activity often happens legitimately (during the installation of new software, for example), it could indicate the presence of a virus.
Move Startup Document	A program tries to move a startup document into or out of the System folder. Although this activity often happens legitimately (when you move startup documents using the Finder, for example), it could indicate the presence of a virus.
Create/Modify Application (default Standard option)	A program tries to create or modify a program file. Although this activity often happens legitimately (when you copy files using the Finder, for example), it could indicate the presence of a virus.
Bypass Resource Manager	A program attempts to modify a resource file without going through the Macintosh Resource Manager. Modifications to a resource file are common; however, they normally take place using the Resource Manager. Although this activity often happens legitimately (when you use a backup program, for example), it could indicate the presence of a virus.

Bypass File System	A program attempts to modify a disk without going through the Macintosh file system. Although this activity could indicate the presence of a virus, some programs (such as ResEdit and Macintosh Programmer's Workshop) bypass the file system as part of their normal processing.
Bypass NAV Auto-Protect	A program attempts to modify a resource file without passing through checkpoints that Norton Auto-Protect sets up for monitoring modification attempts. This alert is rare. If it appears, be suspicious because only a few programs (for example, THINK C, Pascal, ResEdit, and some fax programs) bypass Norton AntiVirus Auto-Protect legitimately. Check the Read Me file for the names of any other software programs that bypass Norton AntiVirus Auto-Protect.
Modify Norton AntiVirus (default Standard option)	A program attempts to make changes to Norton AntiVirus. If this activity is detected, it could indicate the presence of a virus.
Modify Special System File (default Standard option)	A program attempts to write to the debugger, disassembler, or System file in a System folder. If this activity is detected, it could indicate the presence of a virus.
Add Special System File (default Standard option)	A program attempts to move, rename, or create a debugger or disassembler file in a System folder. Attempts like this are infrequent and should be viewed suspiciously.
Format without Dialog (default Standard option)	A program attempts to format a disk without the standard format dialog box. This may be caused maliciously by a Trojan horse or legitimately by a program, such as a utility program attempting to create a disk partition. Attempts like this are infrequent and should be viewed suspiciously.

4 Click **Save**.

About Alert Preferences

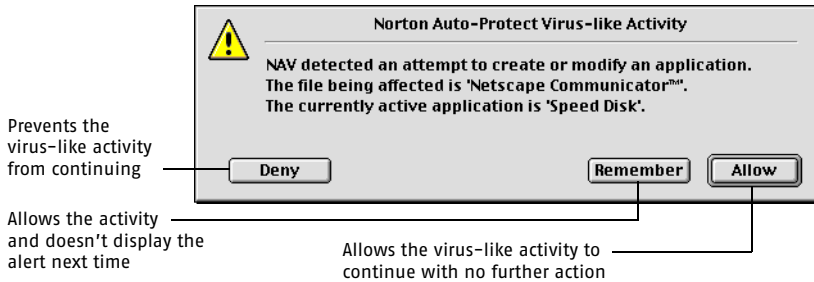


In Mac OS X v10.1, modifying Alert Preferences is not available.

The Alert settings specify how Auto-Protect informs you that it has detected a virus or virus-like activity.

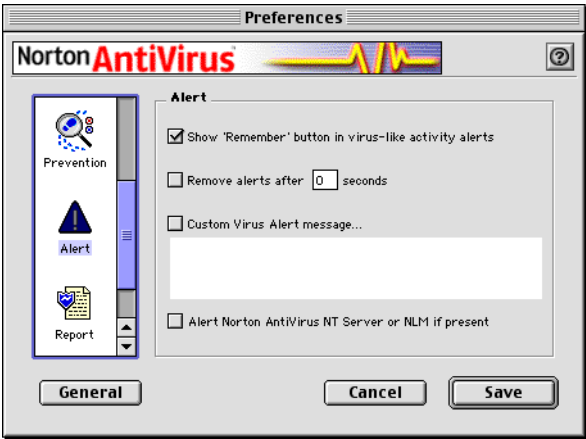
You can customize the message that appears in the alert dialog box, and change other characteristics of the alert. You can set how long the alert stays on the screen, enter a special message, alert others on a network, or set Auto-Protect not to alert you to this type of activity again.

Following is a typical virus-like activity alert in Mac OS 8.1–9.x.



To set Alert Preferences in Mac OS 8.1–9.x

- 1 In the Preferences dialog box, click the **Alert** icon.



- 2 Select the options that you want.
Your choices are:

Show Remember button in virus-like activity alerts	Select to have the Remember button appear in Virus-like activity alerts. Clicking Remember causes Norton AntiVirus Auto-Protect to ignore specific actions while a particular program is running. (This setting affects the Prevention preferences.) Sometimes Norton AntiVirus alerts you of actions that could be the work of a virus, but are not. In these cases, you can click Remember to add the file to the exceptions list, preventing the alert from appearing in the future. See “Manage virus-like activities” on page 140.
Remove alerts after seconds	Select to specify how long alert boxes stay on your screen before the default button is selected automatically. Type the number of seconds (0 to 99) in the seconds text box. For virus alerts, the default button is always Stop. For virus-like activity alerts the default button is always Allow. Uncheck this option if you want alerts to stay on the screen until you respond to them.

Custom Virus Alert message	Select if you want a custom message to appear in virus alerts and virus-like activity alerts. Type the message (such as Call Help Desk - 55555) in the text box.
Alert Norton AntiVirus NT Server or NLM if present	Select to have alerts from Norton AntiVirus sent to the Norton AntiVirus for Windows NT (NAV NT) Server or the Norton AntiVirus NetWare Loadable Module (NAVNLN) if it is present on your local network.

- 3 Click **Save**.

About Report Preferences

Norton AntiVirus generates three types of reports:

View History	Lists all the scans performed by Norton AntiVirus.
Norton AntiVirus main window	Lists scan results from scans that you initiate or schedule. You can print this information from the main window when a scan is completed.
Activity Log	Lists scan results from Norton AntiVirus Auto-Protect activity such as automatic floppy disk scans, automatic scans when documents are opened and when you launch a program, and virus-like activity alerts.

You can specify whether to have Norton AntiVirus generate reports on all files scanned, or only those with problems. You can also specify which program you use to view the saved scan report files.

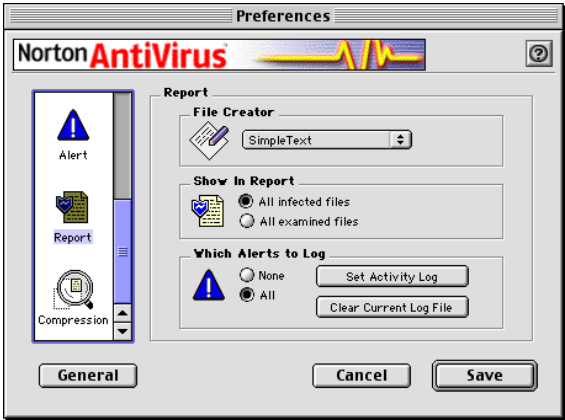
For the Activity Log, you can specify its name and location and the types of alerts it records. You can also clear the Activity Log when it gets too big.



In Mac OS X v10.1, set the report file type on the General Preferences tab. See “[About General Preferences](#)” on page 117.

To set Report Preferences in Mac OS 8.1–9.x

- 1 In the Preferences dialog box, click the **Report** icon.



- 2 In the File Creator list, select a program in which to view saved reports and the Activity Log.
Select **Other** to choose a program other than those listed. A dialog box appears in which you identify the program.
- 3 In the Show in Report box, select an option to specify the scope of reported information when scans are performed.
Your options are:

All infected files	Lists infected files only.
All examined files	Lists every scanned file and reports whether a problem was found or not. (When this option is selected, scanning may take longer on some computers.)

- 4 In the Which Alerts to Log box, select the Activity Log Preferences that you want.
Your choices are:

None	Does not log any alerts in the Activity Log.
All	Logs virus warnings and virus-like activity alerts in the Activity Log.
Set Activity Log	Specifies a location for the Activity Log. You can also specify a different name for the file using this option. The default name is Norton AntiVirus Activity Log.
Clear Current Log File	Clears the contents of the Activity Log file.

- 5 Click **Save**.

View the Activity Log to see the results of your settings. The Activity Log contains the alerts that you specified to log.

To view the Activity Log

- 1 In the Finder, locate the file.
- 2 Double-click the file to open it in the program that you specified as the File Creator in the Report Preferences dialog box.
The default program is SimpleText.

About Compression Preferences

Norton AntiVirus can scan different types of compressed files unless you changed the compression setting when installing. Norton AntiVirus automatically scans all StuffIt compressed files. In addition, Norton AntiVirus scans other types of compressed files using StuffIt technology from Aladdin Systems. You can specify which other compressed file types Norton AntiVirus should scan.

To set Compression Preferences in Mac OS 8.1–9.x

- 1 In the Preferences dialog box, click the **Compression** icon.



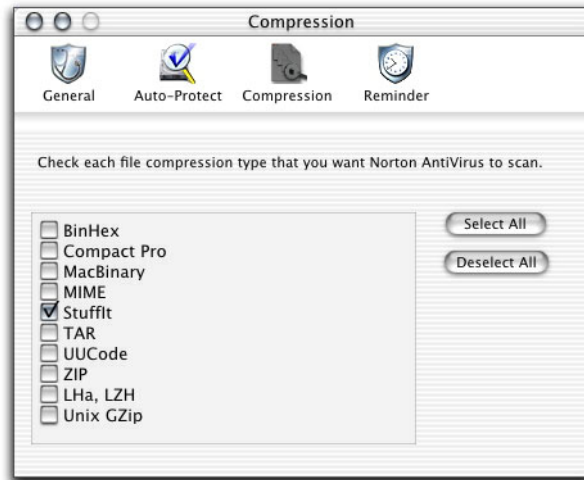
- 2 Do one of the following:
 - Select the file compression types that you want Norton AntiVirus to scan.
 - Click **Select All** to select all of the listed compressed file types.
 - Click **Deselect All** if you do not want any compressed files to be scanned.

Scanning time will be longer if you scan many compressed files.

- 3 Click **Save**.

To set Compression Preferences in Mac OS X v10.1

- 1 In the Preferences window, click **Compression**.



- 2 In the Compression dialog box, do one of the following:
 - Select the file compression types that you want Norton AntiVirus to scan.
 - Click **Select All** to select all of the listed compressed file types.
 - Click **Deselect All** if you do not want any compressed files to be scanned.

Scanning time will be longer if you scan many compressed files.
- 3 Close the window to save your changes.

About Reminder Preferences

You can set Norton AntiVirus to notify you when your virus definitions are out of date. The latest virus definitions are necessary to keep your computer virus-free.



In Mac OS 8.1–9.x, an automatic reminder is not available. Check your virus definitions manually using LiveUpdate. See [“Keeping current with LiveUpdate”](#) on page 77.

To set a reminder in Mac OS X v10.1

- 1 In the General Preferences window, click **Reminder**.



- 2 In the Reminder dialog box, check **Alert when virus definitions appear out of date**.
- 3 Close the window to save your changes.

Password-protect Norton AntiVirus menus

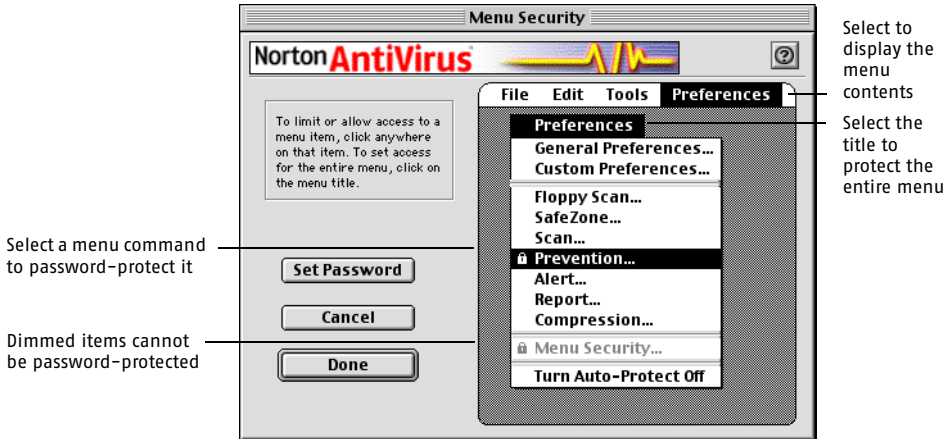
-  Menu Security is not available in Mac OS X v10.1.

You can restrict access to most settings by setting a password. Use the Menu Security command to define what features you want password-protected, and to set or change the password. After you assign a password, you must restart Norton AntiVirus before it becomes active.

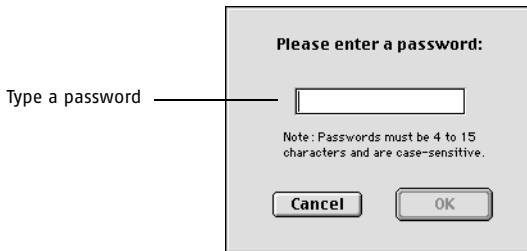
If you assign a password to multiple menu items, unlocking one menu item will unlock them all for as long as Norton AntiVirus is running.

To password-protect Norton AntiVirus menus in Mac OS 8.1–9.x

- 1 On the Preferences menu, click **Menu Security**.



- 2 In the Menu Security dialog box, to password-protect a specific menu command, select the menu command.
- 3 Click **Set Password**.



- 4 Type a password between 4 and 15 characters long. Passwords are case-sensitive. For example, a is not the same as A.
- 5 Click **OK**.
- 6 In the dialog box that appears, retype the password.
- 7 Click **OK**.
- 8 Click **Done**.
 A padlock icon appears next to the protected features.

Change your password

Once you've established a password, you can change it.

To change your password

- 1 On the Preferences menu, click **Menu Security**.
- 2 Type your current password when prompted.
- 3 Click **Set Password**.
- 4 Type the new password.
- 5 Click **OK**.
- 6 In the dialog box that appears, retype the new password.
- 7 Click **OK**.
- 8 Click **Done**.

Remove password protection

If you no longer want password protection for some or all of the features you previously protected, you can remove the protection.

To remove password protection

- 1 On the Preferences menu, click **Menu Security**.
- 2 Type your password when prompted.
- 3 In the Menu Security dialog box, do one of the following:
 - Select the items that have a padlock icon next to them.
 - Click the menu title to unlock an entire menu. The padlock icon disappears.
- 4 Click **Done**.

Manage virus-like activities



The Exceptions List does not apply in Norton AntiVirus for Mac OS X v10.1.

You can edit the list of virus-like activities that you want Auto-Protect to ignore. The Exceptions List contains conditions or activities that would normally be flagged as virus-like, which you have told Auto-Protect to remember. This list also includes any decompression programs.

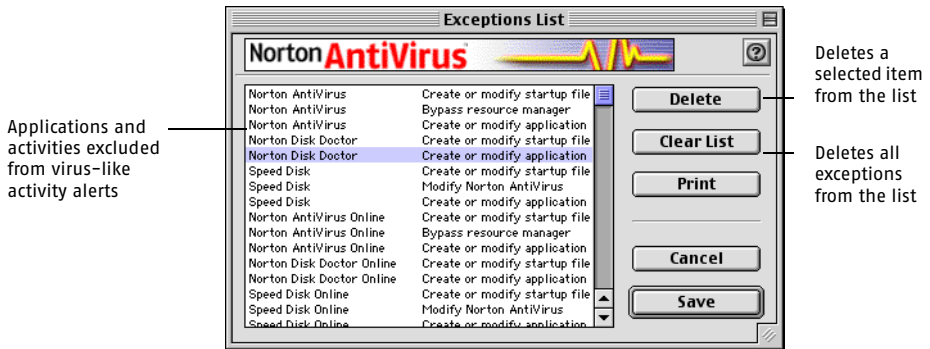
An Exception is saved when you click Remember in a virus-like activity alert. You can enable or disable this feature.

Remove entries from the Exceptions List

You can remove exceptions that you no longer want. For example, if you remove a program from your disk for which you had an exception, you can remove the exception saved for that program.

To remove entries from the Exceptions List

- 1 On the Tools menu, click **Edit Exceptions List**.



- 2 In the Exceptions List dialog box, select the exceptions to delete.
- 3 Click **Delete**.
- 4 Click **Save** to save your changes.

Clear all entries from the Exceptions List

You can remove all entries from the Exceptions List. Be aware, however, that Norton AntiVirus Auto-Protect resumes alerting you of virus-like activities when they occur.

When you first install Norton SystemWorks, some exceptions are already set. These exceptions apply to standard behavior of various Symantec products, including Norton AntiVirus. If you clear all entries from the Exceptions List, you may receive virus-like activity alerts regarding these activities. You can add them back to the Exceptions List by clicking Remember in the virus-like activity alert.

To clear all entries from the Exceptions List

- 1 On the Tools menu, click **Edit Exceptions List**.
- 2 In the Exceptions dialog box, click **Clear List**.
- 3 Click **Save**.



Troubleshooting in Norton AntiVirus for Macintosh

8

See “Norton AntiVirus for Macintosh messages” on page 269.

The problems discussed in this chapter are not directly related to virus activity. If the problem you are trying to resolve is not in this chapter, consult the Read Me file on the Norton SystemWorks for Macintosh CD.

For a comprehensive list of the latest troubleshooting tips, see the Symantec Service and Support Web site, at:
www.symantec.com/techsupp/

Installation problems

If you encounter any problems installing Norton SystemWorks, try restarting from the CD and installing Norton AntiVirus again.

My Macintosh continually starts from the CD; I can't remove the CD

If your computer continues to start from the CD, use the Startup Disk Control Panel to reset the computer.

To restart your computer from the hard drive

- 1 In the Startup Disk Control Panel, make sure that your hard disk is selected.
- 2 On the Special menu, click **Restart**.
- 3 When you hear the startup chime, press the eject button on your CD-ROM drive to eject the CD.
Your computer should now start from the hard disk.

I can't install Norton SystemWorks for Mac OS X v10.1

You must start your computer in Mac OS X v10.1 to run the Norton SystemWorks for Mac OS X v10.1 installer. And you must know your administrator password to install Norton SystemWorks.

Library file error message

If you experience problems with library files immediately after installing, you might still have incompatible files from a previous version of Norton AntiVirus for Macintosh. Delete the Norton AntiVirus Additions folder from the Extensions folder in your System Folder and reinstall Norton SystemWorks.

Startup problems

Startup problems could be due to problems with your computer, with Norton AntiVirus, or with settings that you have made.

Norton AntiVirus Auto-Protect fails to load when I start my Macintosh

If Auto-Protect fails to load, any of several things could be the problem:

- Norton AntiVirus Auto-Protect may have a conflict with one or more of your other system extensions. Check the Norton AntiVirus Read Me file for the most up-to-date information on compatibility with other system extensions. If the Norton Read Me file does not provide the answer, see [“General Macintosh troubleshooting”](#) on page 148.
- In Mac OS 8.1–9.x, if you are using an extension manager program, the program may have disabled Norton AntiVirus Auto-Protect. Start the extension manager program and make sure that Norton AntiVirus Auto-Protect is enabled.
- Your copy of Norton AntiVirus Auto-Protect could be damaged in some way. In Mac OS 8.1–9.x, reinstall Norton AntiVirus Auto-Protect using the Custom install option.
- Make sure that all engine files and virus definitions are installed. Norton AntiVirus does not run without them. For a list of all the installed files, see the NAV Install Log File located on the root of your hard disk.

Norton AntiVirus reports that a file is invalid when trying to launch or scan, or at startup

This is an indication that one of the files making up the virus definitions is damaged or otherwise invalid.

To repair a damaged virus definitions file in Mac OS 8.1–9.x

- 1 Open the **System** folder on your computer.
- 2 Find the Extensions folder and open it.
- 3 Open the **Norton AntiVirus Additions** folder.
- 4 Drag all of its contents to the Trash.
- 5 Reinstall Norton AntiVirus.
- 6 Run LiveUpdate and update your virus definitions.
This restores the current versions of the items in the Norton AntiVirus Additions folder.

To repair a damaged virus definitions file in Mac OS X v10.1

- 1 Uninstall Norton SystemWorks.
- 2 Reinstall Norton SystemWorks.
- 3 Run LiveUpdate and update your virus definitions.
This restores the current versions of the items in the Norton AntiVirus Additions folder.

Norton AntiVirus cannot find the Norton AntiVirus Virus Definitions file

Reinstall Norton SystemWorks.

Norton AntiVirus for Mac OS 8.1–9.x is password-protected and I forgot my password

Uninstall, then reinstall Norton SystemWorks.

In Mac OS 8.1–9.x, how do I prevent Norton AntiVirus from loading first?

Use an extension manager program to change the load order. Items in the Extensions folder load earlier than items in other locations in the System folder.

Extensions load alphabetically, so changing the first character of the name is another way to change the load order. By changing the name of Norton AntiVirus Auto-Protect, you can change its location in the Control Panels folder of the System folder.

Why can't I create an alias to Norton AntiVirus?

If you did not install Norton AntiVirus, you cannot create an *alias* (a shortcut icon that points to an original object such as a file, folder, or disk) to it because of the access permissions established in Mac OS X v10.1. Have the person who installed the software create an alias and place the alias in an area to which you have access. You can then drag the alias to the location that you want.

Protection problems

A file on the disk may be damaged, or Norton AntiVirus ran out of memory, or some other error occurred during scanning.

To determine if a file is causing the problem

- 1 Start Norton SystemWorks.
- 2 In the Norton SystemWorks window, click **Norton AntiVirus**.
- 3 On the File View tab, click the drive triangle to display the folders inside.
- 4 Scan the folders one at a time to determine where the problem is occurring.
- 5 Scan your disk again from the Norton AntiVirus main window. You may also want to examine the disk using a program such as Norton Disk Doctor (part of Norton Utilities for Macintosh).

In Mac OS 8.1–9.x, if you have large files, or a large number of files, you may need to raise the memory allocation for Norton AntiVirus.

To increase memory allocation in Mac OS 8.1–9.x

- 1 Close Norton AntiVirus.
- 2 Select the **Norton AntiVirus** icon.
- 3 On the File menu, click **Get Info**.
- 4 In the Preferred Size field, increase the memory allocation.

In Mac OS X v10.1, Norton AntiVirus scans only those files for which your account has access privileges. You can do one of three things:

- If you ever log on and work as root, run the scan while logged on as root.
- If you do not log on as root, running the scan while logged on as an Administrator scans all files that could be infected while using that logon. If you do not want to see the list of files that could not be scanned because of denied access, check Do not list permissions errors when scanning in Preferences.
- Restart your computer from the Norton SystemWorks for Macintosh CD and scan your computer using Norton AntiVirus for Mac OS 8.1–9.x to avoid access problems.

I need to rescan files that have already been scanned

The Norton AntiVirus QuickScan file records whether you have already scanned a file using the currently installed virus definitions and libraries. If not, the file is scanned. If you want all files to be scanned regardless, you can use Norton AntiVirus to delete the QuickScan file at the root of each disk. The file is named NAV• 7.0 QuickScan in Mac OS 8.1–9.x and NAV• Mac 800 QS File in Mac OS X v10.1.

To remove the QuickScan file

- 1 In the Norton AntiVirus window, on the File View tab, ensure that Show Invisible Files is checked.
- 2 Select your hard disk.
- 3 Click the **QuickScan** file.
If there are QuickScan files from previous versions of Norton AntiVirus, select them as well.
- 4 Click **Move To Trash**.
- 5 Click **OK**.
- 6 Quit Norton AntiVirus.
- 7 In the Finder, click **Empty Trash**.

After you have deleted the QuickScan file, the first scan with the new virus definitions will be slower.

I'm having trouble updating virus definitions using LiveUpdate

In some rare cases such as immediately after the emergence of a new virus, the LiveUpdate servers may be very busy and it may be difficult to get a connection. In such cases, keep making connection attempts and you should eventually be successful.

When using LiveUpdate, make sure that your Internet connection is working by testing the connection with your application, such as your Web browser.

General Macintosh troubleshooting

In Mac OS 8.1–9.x, if you experience a problem starting your Macintosh after installing Norton AntiVirus, there may be a conflict with other extensions on your computer. Follow the procedures below to troubleshoot the problem.

You should try restarting your computer with Extensions disabled. Extensions may conflict for one or more of the following reasons:

- There may be more than one copy of the System file on the same partition.
- A file may be damaged.
- The files may need to be loaded in a different order.
- One of the files may need to be updated.

Other troubleshooting steps

Here are some other steps that you can take to resolve problems with your Macintosh.

- Reinstall or upgrade the System software.
For more information, see your Macintosh System documentation.
- Use Norton Utilities for Macintosh to find and fix disk problems.
- Rebuild the Desktop file.
For more information, see your Macintosh System documentation.
- Reinstall Norton AntiVirus.
- Update the disk driver.
For more information, see your Macintosh System documentation.
- Reset the PRAM (Parameter RAM).
For more information, see [“Zap the PRAM \(reset Parameter RAM\)”](#) on page 251 or your Macintosh System documentation.



3

Norton Utilities

Examining, repairing, and recovering disks

9

During its examination process, Norton Disk Doctor runs a series of user-configurable tests. When repairable problems are found, Norton Disk Doctor gives you the option of repairing or ignoring them. Regular examination of your disks is the best way to prevent disk damage and data loss.

See [“Start from the CD”](#) on page 33.

Some startup disk repairs can only be performed when your computer is restarted from the CD or another external disk. If you have a damaged or crashed disk, start from the CD to run Norton Disk Doctor.

If Norton Disk Doctor cannot repair a disk, use Volume Recover to restore it or rebuild its directory. If a disk is unrecoverable, recover files and file contents with UnErase.

See [“Protect disks with Norton FileSaver updates”](#) on page 62.

Successful repairs to disk and directory information depend on FileSaver data. Be sure to keep FileSaver files up-to-date.

When to use Norton Disk Doctor

Examine your disks with Norton Disk Doctor regularly, for example, before you back up your data files and before you run Norton Speed Disk.

In Mac OS 8.1-9.x, Norton FileSaver scans for problems on your hard disk. If it notifies you that you should run Norton Disk Doctor, do so as soon as possible.

Use Volume Recover in Mac OS 8.1–9.x

Use Volume Recover in Mac OS 8.1–9.x, or when you have started from the CD, if your disk:

- Is damaged and doesn't appear on the Desktop
- Doesn't appear in the Norton Disk Doctor, UnErase, or Volume Recover windows
- Has been reinitialized or accidentally erased, or if you changed your partition structure using driver software

See "Recover damaged disks with Volume Recover" on page 167.

In Mac OS 8.1–9.x, Norton Disk Doctor might advise you to use Volume Recover to recover directory structures or partition information. Consider using Volume Recover if you have accidentally erased so many files that Norton FileSaver does not track them all individually, for example, if you accidentally deleted a folder that contained many files.

The examination and repair process

See "Set Norton Disk Doctor test preferences" on page 155.

Norton Disk Doctor checks your disk for problems by running a series of tests that check the major components of your disk, directories, and files. Exclude any tests that you don't want to run.

See "Run Norton Disk Doctor tests" on page 159.

Unless you have specified that it repair problems automatically, Norton Disk Doctor requests permission before it performs repairs.

See "Manage examination results" on page 164.

If problems are found during the examination, Norton Disk Doctor displays a Problem Found dialog box. Sometimes Norton Disk Doctor can repair the problems immediately. If not, it can create *aliases* (shortcut icons that point to original objects such as files, folders, or disks) to help you find and fix the problem files when the disk examination is complete.

Depending on the type of damage that is found while running the tests, Norton Disk Doctor might advise you to run Volume Recover (in Mac OS 8.1–9.x) or UnErase. In these cases, start the tools in Norton Disk Doctor.

Start Norton Disk Doctor



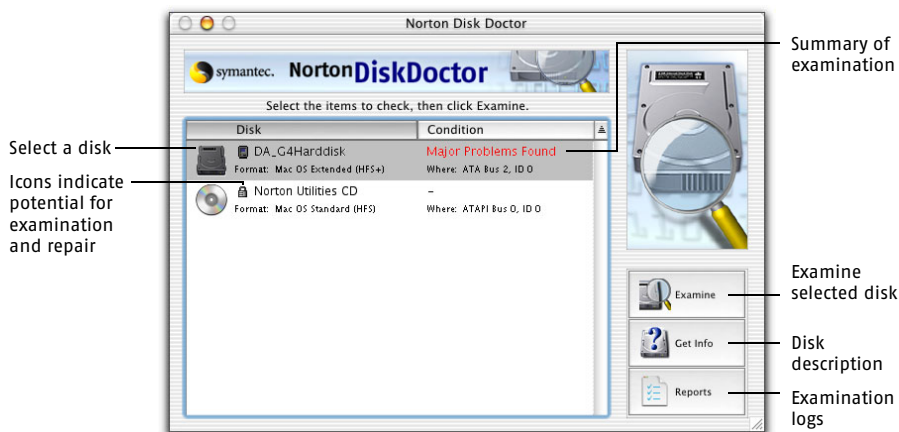
In Mac OS X v10.1, if you are using Norton Disk Doctor to repair a startup disk, restart from the Norton SystemWorks for Macintosh CD before you run Norton Disk Doctor. See [“Start from the CD”](#) on page 33.

See [“Use Norton SystemWorks shortcuts”](#) on page 57.

There are contextual menu and drag and drop shortcuts that you can use with Norton Disk Doctor.

To start Norton Disk Doctor

- 1 Start Norton SystemWorks.
- 2 In the Norton SystemWorks window, click **Norton Disk Doctor**.



Set Norton Disk Doctor test preferences

Although the default settings are appropriate for most testing, Norton Disk Doctor tests can be configured to reflect your work needs or test situations. For example, to have Norton Disk Doctor diagnose but not repair a disk, specify the options in the Repair Preferences.

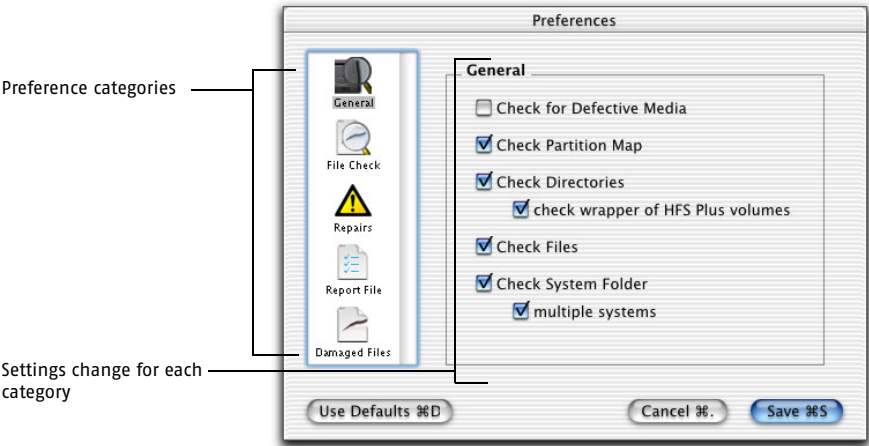
See [“Access Help”](#) on page 73.

In Mac OS 8.1-9.x, all preferences are described in Norton Disk Doctor Guide and in the Balloon Help.

The Preferences dialog box displays a list of categories that are represented by icons. Each category has detailed subcategories. Not all tests apply in Mac OS X v10.1.

To set Norton Disk Doctor test preferences

- 1
- In the Norton SystemWorks window, click **Norton Disk Doctor**.
- 2
- Do one of the following:
- Mac OS X v10.1: On the Norton Disk Doctor menu, click **Preferences**.
- Mac OS 8.1-9.x: On the Edit menu, click **Preferences**.



- 3
- In the list of preference categories, click a category icon.
The corresponding settings appear for the category that you select.
- 4
- Select your test preferences.
Your choices for the General category are:

Media Check (Mac OS 8.1-9.x only)	Checks the disk surface areas (blocks) for damage. A bad block is any block that cannot safely store data. If a file occupies a bad block and there is sufficient free space on the disk, Norton Disk Doctor attempts to move the file's data to the free space. The bad block is marked so that no new data is stored there. Because floppy disk media is more susceptible to failure than that of a hard disk, use this option to check floppy disks. This option is unchecked by default. Use this option whenever you have time for a full media examination.
Partition Map	Examines and verifies physical disk structures and data, including the Driver Descriptor Map, Partition Maps, and the device driver.

Directories	<p>Checks and verifies parts of the directory, including logical disk structures such as the extents tree and the catalog tree. Then it checks and verifies the extents tree records and catalog tree records. These structures keep track of where files are stored on the disk, so it is important to keep this option enabled.</p> <p>The test also checks and verifies critical disk directory structures such as the Master Directory Block (MDB) and Volume Bit Map (VBM) on HFS volumes, or the Volume Header Block (VHB) and Allocation file on HFS Extended volumes. It also checks for <i>cross-linked files</i> (files that share one or more of the same blocks).</p>
Files	<p>Checks for multiple sets of System and Finder files, incorrectly set or unset Bundle Bits and Custom Icon Bits for files and applications, file corruption, and incorrect date information. It can also check for null characters in file names and names beginning with periods.</p> <p>By default, the Names beginning with period option is disabled. It should not be enabled if Mac OS X is installed, because Mac OS X creates system files whose names begin with periods. Changing those names can adversely affect the Mac OS X operating system.</p> <p>You can select the type of file damage for which Norton Disk Doctor checks. Damage found by selecting Bundle Bit, Custom Icon, or Invalid Dates is limited to the affected files, so you might occasionally want to disable these options to save time. Leave Damaged Resource Fork selected, as using a file with this damage can cause your Macintosh to crash.</p>
System Folder	<p>Checks the files in the System folder for problems. If Multiple Systems is checked, Norton Disk Doctor checks all System folders.</p> <p>If you have a Mac OS X partition, Norton Disk Doctor does not recognize it as a System folder, and it will be checked regardless of this setting.</p>



For descriptions of all Norton Disk Doctor preferences in Mac OS 8.1-9.x, view the Balloon Help. See [“Access Help”](#) on page 73.

- 5
- In the Preferences list, select another category icon and make changes to the corresponding settings.
Your choices are:

Media Check	Specifies how thoroughly Norton Disk Doctor checks for defective media, and whether files containing bad blocks are repaired
File Check	Checks files for valid names, bundle bits, icons, resource forks, and dates
Repairs	Determines how Norton Disk Doctor handles repairs when a problem is found
Reports File	Specifies the file type for the Norton Disk Doctor report file
Undo Fixes	In Mac OS 8.1-9.x, specifies if Norton Disk Doctor saves an Undo file automatically, and a destination for the Undo file
Damaged Files	Specifies how Norton Disk Doctor handles aliases to damaged files

- 6
- When you have finished, click **Save**.
The changes take effect the next time that you examine the disk.

Select the disks to examine

When you start Norton Disk Doctor, the disks that are available for examination appear in the list. In the disk column, the name of the disk and an icon representing its type appears.

The small icons to the right of the disk icons indicate each disk’s potential for examination and repair.

- Macintosh icon

The disk contains the active System file and some repair functions are limited in Mac OS 8.1-9.x, and can’t be performed in Mac OS X v.10.1.
- Application icon

The disk contains the Norton Disk Doctor application.
- Lock icon

The disk is write-protected and Norton Disk Doctor can examine the disk, but cannot perform any repairs on it.

If a disk doesn't appear in the list

See ["Locate missing disks in Mac OS 8.1-9.x"](#) on page 67.

In Mac OS 8.1-9.x, if you do not see a disk in the Norton Disk Doctor list, it might not be mounted. Use the disk recovery tools, Show Missing Disks and Add Disk, to mount it.

See ["View file, folder, and disk information"](#) on page 173.

If you see a disk without a name, or with a name that you don't recognize, use Norton Disk Doctor to help identify it and, if necessary, repair any problems.

If the Finder rejects removable media

Norton Disk Doctor, Volume Recover, and UnErase work on all types of disks and removable media. In Mac OS 8.1-9.x, the Finder might try to eject damaged removable media such as floppy disks, or might crash when a damaged disk is inserted. Norton Disk Doctor, Volume Recover, and UnErase let you bypass the Finder to mount a damaged removable media disk.

To bypass the Finder and mount a damaged disk

- 1 Start Norton Disk Doctor, Volume Recover, or UnErase.
- 2 Insert the removable media into its drive while holding down the **Option** key.
The disk appears in the window, but is not mounted on the Desktop. When inserting removable media, if the removable disk is damaged severely and the Finder is active, the Finder might display an alert message. Your Macintosh will beep and display a Macintosh icon on the right side of the menu bar.
- 3 Do not select the Finder. Ensure that Norton Disk Doctor, UnErase, or Volume Recover is the active application.
Once the removable media disk is mounted in the Norton Disk Doctor, Volume Recover, or UnErase main window, you can proceed with repair or recovery.

Run Norton Disk Doctor tests

During the disk examination, Norton Disk Doctor checks every area of your disk, looking for problems that need immediate attention as well as conditions that could create future problems. A hard disk examination might take time, but Norton Disk Doctor keeps you informed and provides suggestions to help you decide how to handle problems.

If you are unsure about a repair decision, skip it. After the examination, print the Norton Disk Doctor Report and refer to it when you examine the disk again.

Save an Undo file in Mac OS 8.1–9.x

In Mac OS 8.1–9.x, Norton Disk Doctor repairs directories during its examination, and it is possible that a repair might cause an unwanted result. Not all repairs can be undone. Use the Undo file to attempt to undo Norton Disk Doctor repairs and return your hard disk to the state before Norton Disk Doctor repaired the damage that it found.

By default, Norton Disk Doctor prompts you to specify a location to which to save the NDD Undo Files. If you restarted from the CD (or have set your Preferences to Always Ask For An Undo File Location), Norton Disk Doctor might prompt you to specify a location. Save the Undo file to a disk other than the one that you are examining. It is better to bypass the creation of an Undo file than to risk overwriting data on a damaged disk.

If the Choose Location dialog box shows no option other than your damaged disk or the Norton SystemWorks for Macintosh CD, cancel the selection. Norton Disk Doctor continues to examine and repair your disk without creating an Undo file.

Examine disks

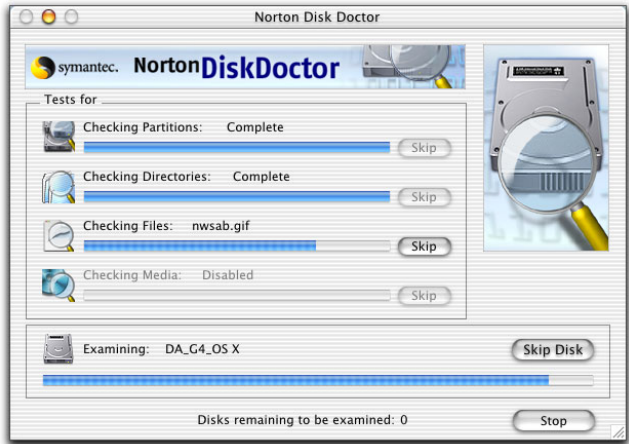
See “[Examine your startup disk](#)” on page 36.

In Mac OS X v10.1, if major problems are found on your startup disk, restart your computer from the Norton SystemWorks for Macintosh CD and run Norton Disk Doctor from the CD to repair the problems.

See “If the Finder rejects removable media” on page 159.

To examine a disk

- 1
- In the Norton Disk Doctor main window, select one or more disks.
If the disk is a floppy disk or other type of removable media, insert it now.
- 2
- Click **Examine**.
In Mac OS 8.1-9.x, if you are prompted to select an Undo location, select one and click **Choose**.



The progress window shows Norton Disk Doctor progress as it runs its series of tests on each disk.

- 3
- You can click any of the following during an examination:

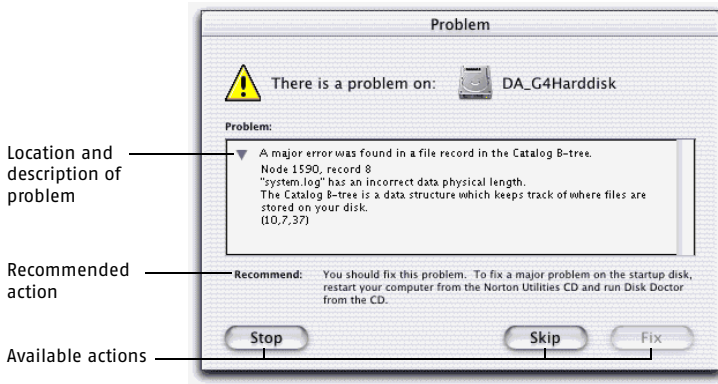
Skip	Skip a test.
Skip Disk	Skip the remaining tests for this disk. If another disk is selected, Norton Disk Doctor proceeds to examine it.
Stop	Stop examining all disks.

If your disk is damaged severely and you choose not to fix problems, Norton Disk Doctor might be unable to finish diagnosing the disk. Norton Disk Doctor informs you when it cannot continue.

When Norton Disk Doctor is finished, it displays the results for each disk tested in a report window.

If a problem is found

When Norton Disk Doctor encounters a problem, it displays an alert.



The Problem dialog box describes the type of error and the files or other disk elements that are affected:

- If the problem can be fixed, Norton Disk Doctor displays the recommended action and lets you decide whether to fix it.
- If Norton Disk Doctor cannot fix the problem, it makes a recommendation. See [“About Norton Disk Doctor messages”](#) on page 275.
- If Norton Disk Doctor detects damage it cannot repair, but that might be corrected by Volume Recover, it displays a dialog box from which you can run Volume Recover. See [“Recover damaged disks with Volume Recover”](#) on page 167.

To respond to alerts

- ❖ Click one of the following:
 - Fix: Repair the problem in the selected file and continue with the rest of the tests.
 - Fix All: Repair the problem in all of the listed files.
 - Continue: Skip the repair and continue examining the disk.
 - Stop: Stop the disk examination.

You might need to restart your computer before the repairs take effect.

If a disk was not originally mounted on the Desktop, Norton Disk Doctor might need to mount it when the examination is finished.

If Norton Disk Doctor can't complete the examination

When Norton Disk Doctor prompts you to load a device driver, you might have to stop and load the driver before further repairs can be done.

Norton Disk Doctor might also display a message that states that it is not able to complete the examination. In some cases, it might be necessary to reinstall the driver for the disk to work properly. See your hardware or software driver documentation for information on installing or updating your driver.

To respond to a driver message

- ❖ Click **OK** to load the driver and mount the disk.

Other methods include the following:

- Update the driver with a drive utility such as Apple Drive Setup.
- Restart the computer, and then run Norton Disk Doctor again.

If Norton Disk Doctor can't repair a problem

Occasionally, a disk or file is so severely damaged that no software program can fix it. If a disk is badly damaged, Norton Disk Doctor displays a dialog box that tells you to back up and reformat the disk. If a file is badly damaged, try to recover its contents with UnErase.

When Norton Disk Doctor can't repair a problem try the following actions.

For more information	Action
See "Retrospect Express quick start" on page 256.	If the disk can be mounted, back it up and check to see if files are missing from the disk.
See "Rebuild a disk directory" on page 171.	Start Volume Recover and try the Rebuild Directories feature.
See "Recovering missing or erased files" on page 181.	Use UnErase to look for additional files.

Create aliases for files that can't be repaired

Norton Disk Doctor identifies files with bad resource forks, but it cannot repair those files. You must replace, reinstall, or remove the corrupted files.

To make the irreparable files easier to locate after the disk examination, Norton Disk Doctor can create an alias for each corrupted file.

See ["Set Norton Disk Doctor test preferences"](#) on page 155.

To create an alias

- ❖ When Norton Disk Doctor prompts you to save aliases during an examination, do one of the following:
 - Use the default location set in Norton Disk Doctor Preferences.
 - Specify a location for the aliases.

To locate a file using its alias

- 1 Locate and select the alias icon.
- 2 On the File menu, click **Show Original**.

Manage examination results

If Norton Disk Doctor repaired major problems, examine the disk again to ensure that no additional problems are found. When the repeated examination is finished, Norton Disk Doctor should report that no problems were found.

When the disk examination has completed, Norton Disk Doctor displays a summary of the examination. You can view details of the examination in a report.

To view a Norton Disk Doctor report from the Summary dialog box

- ❖ In the Summary dialog box, click **View Reports**.
Norton Disk Doctor displays a report of the most recent examination. You can view a report, print it, or save it as a different file type.

Norton Disk Doctor keeps reports of previous disk examinations. You can view and print these reports.

To view a Norton Disk Doctor report

- 1 In the Norton Disk Doctor window, click **Reports**.
- 2 To sort the report list, click the Disk, Date, or Condition column.
- 3 In the Norton Disk Doctor Reports window, select a report.
The report's contents appear in the lower part of the window.
- 4 Do one or both of the following:
 - Scroll down to view the entire contents of the report.
 - To print the report, on the File menu, click **Print**.

Each stored report uses a small amount of disk space. Periodically delete reports that are no longer needed.

To delete a report

- 1 In the Norton Disk Doctor Reports window, select the report.
- 2 Press **Delete**.

Set report preferences

You can specify which text editor or word processing program to use when you display reports. Because some applications do not recognize file types unless a system extension is added to the file name, you can include system extensions in the report file names.

To set report preferences

- 1 Start Norton Disk Doctor.
- 2 Do one of the following:
 - Mac OS X v10.1: On the Norton Disk Doctor menu, click **Preferences**.
 - Mac OS 8.1-9.x: On the Edit menu, click **Preferences**.
- 3 Click **Report File**.
- 4 Under Save Report As, select a text editor.
- 5 Check or uncheck **Show System Extensions on Reports**.
- 6 Click **Save**.

Use Norton Disk Doctor for routine maintenance

In Mac OS 8.1-9.x, Norton Disk Doctor not only performs repairs, it can also fix minor inconveniences such as rebuilding the Desktop file and matching orphan data files with their application types.

Rebuild the Desktop in Mac OS 8.1-9.x

Desktop files are invisible files that help keep track of the files on each volume. As you work with a volume, information is added to these files. If Desktop files are damaged, they can cause startup problems. Norton Disk Doctor lets you use the Finder's ability to rebuild Desktop files on selected disks. Rebuild the Desktop once a month.



When you rebuild the Desktop, any comments that you have added to the files' Get Info windows are lost, since the Desktop file that contains these comments is deleted.

To rebuild the Desktop in Mac OS 8.1–9.x

- 1 Start Norton Disk Doctor.
- 2 Select the volumes to rebuild.
- 3 On the Tools menu, click **Rebuild Desktop**.
- 4 If you are asked to confirm, click **Continue**.
If you don't want to see this alert the next time that you rebuild the Desktop, click **Don't show this alert again**.
The Desktop files of the selected volumes are made visible and moved to the Trash, and the disks are unmounted.
- 5 If any disks cannot be unmounted, you might have to restart.

If the disk can't be unmounted, the Finder rebuilds the Desktop as soon as the old Desktop files are moved to the Trash.

To rebuild the Desktop on an unmountable disk

- 1 Click **OK** to respond to the message.
- 2 Click one of the following:
 - Restart: The Desktop files are rebuilt the next time that the computer starts.
 - Continue: The unmountable volumes are remounted, and the Finder rebuilds the Desktop files for those volumes.

Add a file to the Desktop in Mac OS 8.1–9.x

The Finder uses icons to identify files, folders, and programs on your disks. Information about which icons to display is contained in the application that is associated with the file. When a generic icon for a file appears instead of its specific icon, update the Desktop files. When you add an application to the Desktop file, you also add information about all of the icons that are used to identify files that are associated with that application.

To add a file to the Desktop in Mac OS 8.1–9.x

- 1 Start Norton Disk Doctor.
- 2 On the Tools menu, click **Add Files to Desktop**.
- 3 Select one or more files with generic icons.
- 4 Click **Add**.
- 5 Click **OK**.

Recover damaged disks with Volume Recover



Use Volume Recover in Mac OS 8.1-9.x or when your computer is started from the Norton SystemWorks for Macintosh CD to recover Mac OS X or Mac OS 8.1-9.x volumes.

See ["Protect disks with Norton FileSaver updates"](#) on page 62.

Volume Recover restores your disk using existing FileSaver files to recreate a damaged disk to the state that it was in when Norton FileSaver recorded the information. FileSaver files contain critical information that identifies the structure of a disk. By restoring this information, you might be able to return the disk to a condition that Norton Disk Doctor can repair.

See ["Rebuild a disk directory"](#) on page 171.

You can also use Volume Recover to rebuild damaged or missing directory data if there is no FileSaver data for the disk. Volume Recover scavenges the damaged disk for directory information and rebuilds the structure according to the files and other structural information that are found.

If you need to recover many individual files from within one folder, you can use Volume Recover to recover FileSaver information for all items in the folder. This could be faster and more efficient than using UnErase to recover individual files.

When not to use FileSaver files

Under the following circumstances, it is better to use a method other than recovering FileSaver files, such as rebuilding directories.

For more information	Circumstance for not using Norton FileSaver
See "Recover files with UnErase" on page 187.	If the files that you want to recover were created after the date of the most recent FileSaver information file, or if partition information on the disk might be damaged, use UnErase to recover the newer files to a different volume before you perform any Volume Recover activity. Once those files are recovered, use Volume Recover to restore the older FileSaver information and recover other files on the disk.

For more information	Circumstance for not using Norton FileSaver
See "Rebuild a disk directory" on page 171.	If the FileSaver information is more than a few days old, avoid using it to restore a disk that you have used more recently. If you must use an older FileSaver file to recover data, you will be restoring your disk to the state it was in on the date that the FileSaver file was saved. You will lose any changes to files that were created or modified after the date of that FileSaver file.
See "Rebuild a disk directory" on page 171.	If the information is more than a week old, Volume Recover prompts you to run Rebuild Directories, which provides the best chance of recovery. If FileSaver information is out-of-date, restoring old FileSaver data can make future data recovery efforts difficult. An exception to this is a case in which you have not used your computer for an extended period of time.

What Volume Recover can't do

Volume Recover cannot recover an initialized disk or a hard disk that has been low-level formatted, as this type of initialization completely erases all information on the disk.

Volume Recover does not recover data to your Startup Disk, locked disks, or disks from which the Volume Recover application is running. If you select one of these disks as a recovery destination, the Recover button is unavailable.

To use Volume Recover when the destination disk is locked

- 1 Start your Macintosh from the Norton SystemWorks for Macintosh CD.
- 2 Start Norton SystemWorks.
- 3 On the Utilities menu, click **Volume Recover**.

The recovery process

When you start Volume Recover, it displays the currently mounted disks in the main window. When you click Search, it scans for additional volumes and looks for FileSaver information. It guides you through the process of recovering vital disk information, and displays messages to help you decide whether to restore a disk with FileSaver data.

See ["Rebuild a disk directory"](#) on page 171.

If you know that Norton FileSaver was not active for the damaged disk, skip the recovery process and try the Rebuild Directories feature.

Before proceeding, be aware of the following:

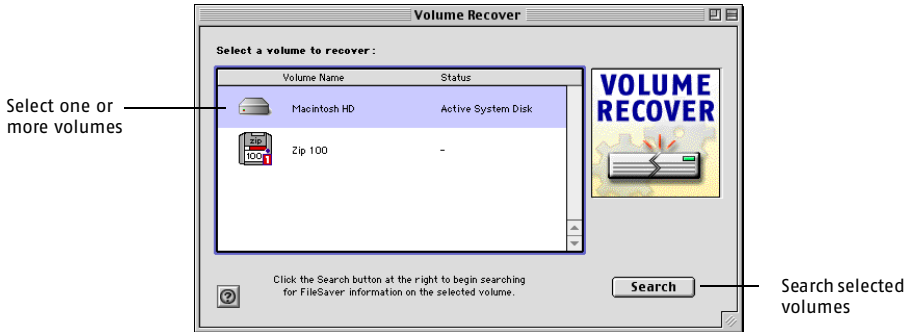
- Any files that were created after the most recent FileSaver information file are not recovered.
- Any file that was modified or deleted after the FileSaver information files were last saved is recovered but might be damaged.
- You cannot undo the Volume Recover process.

Select the disk to recover

Volume Recover scans for disks. The available disks appear in the Volume Recover main window.

To start Volume Recover

- 1 In the Norton Tools folder, double-click **Volume Recover**.



- 2 In the Volume Recover main window, select the volume or disk whose information you want to recover.

If you don't see the disk that you're looking for

If you don't see a disk that you're looking for in the Volume Recover list, your disk might not be mounted, or there might be another problem. See [“If a disk doesn't appear in the list”](#) on page 159.

If you see a disk without a name, or with a name that you don't recognize, use the Get Info command to get more information about the disk. See [“About disk information”](#) on page 174.

If the Finder rejects removable media

Sometimes the Finder will try to eject a badly damaged removable disk, or it might crash when the disk is inserted. In these cases, you can bypass the Finder. See [“If the Finder rejects removable media”](#) on page 159.

Search for FileSaver information

When you have located the disk that you want to recover, search for FileSaver information.

To search for FileSaver information

- 1 In the Volume Recover main window, select the disk to recover.
- 2 Click **Search**.

If an expected FileSaver file isn't found

If the located FileSaver information is not for the volume that you want to recover, or if you think there is more recent FileSaver information for the volume, Volume Recover can search for more FileSaver files.

To search for more files

- ❖ In the Volume Recover search results window, click **Search More**.
If FileSaver information is still not found, Volume Recover can search the entire physical device.

See [“Rebuild a disk directory”](#) on page 171.

If Volume Recover still can't find FileSaver information, or the FileSaver information is more than one week old, try rebuilding the disk's directory.

See [“Protect disks with Norton FileSaver updates”](#) on page 62.

If no suitable FileSaver files are found, ensure that in the future, your FileSaver files are up-to-date. Ensure that Norton FileSaver is configured to protect your files and volumes.

Recover a disk using FileSaver information

After starting Volume Recover and locating a FileSaver file, complete the restoration of your disk. Always select the most recent FileSaver file, unless you know that your disk was damaged before the date and time that the file was saved.

To restore a disk using FileSaver information

- 1 Select a FileSaver information file.
- 2 Click **Restore**.
Volume Recover informs you that the disk's directory information will be replaced by the FileSaver information.
- 3 Click **Proceed** to restore the FileSaver information to the selected volume.

Prepare the recovered disk for use

If recovery with the FileSaver file is successful, Volume Recover rewrites the driver area of the disk. You must restart your computer to complete the recovery.

To prepare the recovered disk for use

- 1 Restart your computer.
After you restart, the restored FileSaver information takes the place of the current disk information.
- 2 Copy any critical files from your computer's restored disk to another disk as a precaution.
- 3 Run Norton Disk Doctor to examine and further repair the disk with the newly restored directory and partition information.

See ["Examine disks"](#) on page 160.

If recovery is not successful

See ["Recover files with UnErase"](#) on page 187.

If Volume Recover is not successful in restoring your disk by rebuilding the directory or recovering FileSaver information, use UnErase to recover files from the disk.

Rebuild a disk directory

Sometimes missing files are not listed in a disk's directory because damage to the directory prevents the corresponding directory entries from being found. Rebuild Directories scans the hard disk for all file records and creates a directory that contains those records. Volume Recover recovers all available records using this feature. This might include some files that you have intentionally deleted.

If your disk is badly damaged, Volume Recover might need to search the entire disk to ensure that all directory data exists. The recovery of any

additional files found by this search might result in the loss of other valid directory files, if the additional files have the same names as the more recent files.

Rebuild Directories restores files on the same disk, so there is no need to back up files and reformat the disk. Because Rebuild Directories places catalog tree nodes in order according to the contents of the drive, rebuilding a disk's directories might temporarily improve the performance of disks that contain many files.



The Rebuild Directories process is not reversible.

To rebuild a disk directory

See [“Start from the CD”](#) on page 33.

See [“Locate missing disks in Mac OS 8.1–9.x”](#) on page 67.

- 1 Restart from the Norton SystemWorks for Macintosh CD, or another startup disk.
- 2 Start Volume Recover.
- 3 If the disk doesn't appear, try to mount it.
- 4 Select the disk whose directory you want to rebuild.
- 5 On the Disks menu, click **Rebuild Directories**.
Volume Recover displays an estimate of the number of directory items found and the amount of space that they occupy.
- 6 If the estimate seems incorrect or your disk is badly damaged, click **Search Entire Disk**.
Do not click this button unless damage to your disk is so severe that no other method can recover your missing files. Because Volume Recover scans the entire disk for all files, this search can be time consuming. For example, a 4 GB drive might take 10 minutes to rebuild.
- 7 When the estimate is satisfactory, click **Rebuild Directory**.
- 8 When you are asked to confirm the warning message, click **Proceed**.
When Rebuild Directories is complete, the disk is mounted on the Desktop.
- 9 Run Norton Disk Doctor to verify that the disk is in good condition. This is a precaution in case other structural problems on your disk might still cause problems.

Get information about disks, folders, and files

The Get Info feature lets you view information about disks, folders, and files. If a disk or file doesn't have an icon or name, use Get Info to identify it. In a Get Info window, you can change the Finder flag, File Type and Creator codes, comments, and the name of a selected item. A *file type* is a four-character identification code stored in a file that associates the file with an application. A *creator code* is a four-character code that indicates the application that created the file.



The information in Get Info windows varies according to the Mac OS that you are running and the item that you select. For example, files that are created in Mac OS X applications do not necessarily have type and creator codes. If you need to change information for an item and it is unavailable in Mac OS X v10.1, restart from the CD or in Mac OS 8.1-9.x, and locate it.

View file, folder, and disk information

The Get Info feature lets you view and change Finder flags, File type and creator information, and comments for disks, applications, files, and folders. Changes that are made in the Get Info windows are permanent and will remain until you or the System changes them.



Editing Finder flags, Creator, and Type characteristics requires technical expertise. Do not change them unless it is absolutely necessary.

To view information for a disk, file, or folder

- 1 Start Norton Disk Doctor.
- 2 Do one of the following:
 - In the Norton Disk Doctor list, select the disk for which you want information.
 - On the File menu, click **Get Info For**.
- 3 Do one of the following:
 - Click **Get Info**.
The Get Info window displays information for the selected disk.
 - In the Get Info For dialog box, locate a file or folder and click **OK**.
- 4 Change the desired options.
- 5 Click the close box.

See "About disk information" on page 174.

About disk information

The Norton Disk Doctor Get Info window displays information about your disk, such as its Finder flags, the number of spare blocks and allocation block size, and device information.

General disk information

General disk information includes the name of the disk that you selected, the kind of disk or device drive it is, such as HFS Extended, SCSI, ATA, USB, FireWire, or floppy disk, or a disk that is accessed over a network; the size of the disk; the amount of used and free space on the disk; the total number of files and folders on the disk; the dates the disk was created and last modified, and any disk comments. Inserted comments appear in the Finder Get Info window.

Finder flags for disks

The following Finder Flag information is available for disks in the Get Info window.

Custom Icon	Whether the disk has a customized icon.
Name Locked	Whether the disk name is locked or can be renamed from the Finder. If the disk is locked, you cannot assign a customized icon to it.

Volume information for disks

The following information is available for volumes in the Get Info window.

Allocation Block Size	The number of allocation blocks on the disk.
Spared Allocation Blocks	The number of defective allocation blocks on the disk. You cannot write to these blocks. If this number is not zero, consider reformatting your disk.

Device Info for disks

The following Device Info is available in the Get Info window.

ATA Bus	Number of ATA buses.
SCSI BUS	(SCSI disks only) The SCSI bus on which this device resides.
SCSI ID	(SCSI disks only) The SCSI ID number of the disk.
LUN	The logical unit of the device.
Sectors	The number of sectors on the entire disk.
Sector Size	The number of bytes, usually 512 bytes, in each sector on the disk.
Total Partitions	The number of partitions on the disk.
Mac OS Partitions	The number of Macintosh OS partitions (logical volumes), excluding hidden partitions that are used to store the disk's driver information and other information on the disk.
Interleave	The interleave on the disk. Interleave is set by the formatting software when the disk is formatted.
Factory Defects	(SCSI disks only) The number of bad sectors on the disk that were mapped out at the factory.
User Defects	(SCSI disks only) The number of bad sectors that have been mapped out since the disk left the factory. User defects are cumulative. Every time that you format a disk, any new bad sectors are added to this list.
Driver Info	The information that is displayed when you use the Get Information feature on the driver that is installed on the disk. The driver may or may not display useful information such as the disk manufacturer's name, the disk's version number, and its ID.

About folder information

The Norton Disk Doctor Get Info window displays information about your folder, such as its size, the number of files that it contains, and its Finder information.

General folder information

The following information is available in a folder’s Get Info window.

Name	The name of the folder that you selected.
Kind	Folder.
Size	The amount of data that is contained in all of the files in the folder, and the amount of disk space used to hold these files. The second number is larger because the file system can only assign disk space in allocation blocks, regardless of what portion of the allocation block is actually used.
Files	The number of files that the folder contains.
Subfolders	The number of folders that the folder contains.
Created	The date on which the folder was created.
Modified	The date on which the folder or any files in the folder were last modified.
Comments (Mac OS 8.1-9.x only)	Folder comments that appear in the Finder Get Info window. You can view and modify any existing comments or insert new folder comments.

Finder flags for folders

The following Finder flags are available for folders.

Invisible	If this check box is checked, the folder is not visible in the Finder. The folder does not appear on the Desktop or in most Standard File dialog boxes.
Initied	If this check box is unchecked, the Finder cleans up the icon’s position in its folder. For the change to take place, the folder has to be closed and reopened. Once you find a location for the icon, the Initied box is automatically reselected.
Name Locked	If this check box is checked, the folder cannot be renamed from the Finder, and it cannot have customized icons assigned to it.
Custom Icon	If this check box is checked, the folder has a customized icon.

About applications and files

The Norton Disk Doctor Get Info window displays information about your applications and files. Files and applications store much of the same information, but applications contain additional information about the application's memory requirements.

General information for applications and files

The following general information is available for applications and other files.

Name	The name of the application or file that you selected is displayed.
Locked	If checked, the application or file cannot be deleted or modified.
Kind	For applications, the kind is Application. For documents, the kind is either the name of the application that created the document or, if the application is unknown, just Document.
Size	The size of the application's or file's resource and data forks. As with folders, the actual size of the file and the amount of space that it takes on the disk is shown.
Created	The date that the application or file was created.
Modified	The date that the application or file was last modified.
Version	The version number of and copyright information for the application or document. This information is provided by the programmer.
Comments (Mac OS 8.1-9.x only)	Comments that appear in the Finder Get Info window. You can view and modify any existing comments or insert new comments.

Finder flags for applications and files

The following Finder flags are available for applications and files in the Get Info window.

On Desk	If this check box is checked, the application or file is on the Desktop.
Invisible	If this check box is checked, the application or file is not visible in the Finder. The application or file does not appear on the Desktop or in most Navigation Services dialog boxes that appear when you open or save a file.
Bundle	If this check box is checked, icons are stored in the resource fork of the application or file.
Stationery	If this check box is checked, the file is a stationery pad. This means that when you open the file, its contents are copied and opened in an untitled window.
Shared	If this check box is checked, the application can be shared by multiple users over a network.
Inited	If this check box is checked, the Finder has seen the file or application and assigned it to a location in a window or on the Desktop.
Alias	If this check box is checked, the file is an alias.
No INITs	If this check box is checked, the file's initialization procedure will not load at startup. This item only affects startup files such as INITs and System Extensions.
Name Locked	If this check box is checked, the application or file cannot be renamed from the Finder, and it cannot have customized icons assigned to it.
Custom Icon	If this check box is checked, the application or file has a customized icon.

Type and Creator information for applications and files

The Get Info window displays the following Type and Creator codes for applications and files. You can change this information if you need to associate a file with a specific application.



Be careful when modifying type and creator codes. Setting the wrong code might cause a document to be unrecognized by the application that created it.

Type	Displays the type of the application or file. Type distinguishes between applications and documents, and different types of documents. You can change the type by entering a new type code in the text box. Applications always have the type APPL. If you cannot open a word processing document, changing this type to TEXT might allow it to be opened by any application that can read text documents.
Creator	Displays the creator of the application or file. The creator distinguishes one application's documents from another application's documents. You can change the creator by typing a new creator code in the text box.

Application memory

For applications, the Get Info window displays the following memory requirements.

Suggested	The amount of memory (RAM) that the application normally uses to run. This is determined by the programmer.
Minimum	The minimum amount of memory (RAM) in which the application can run. This is determined by the programmer.
Current	The current amount of memory (RAM) assigned to the application. To change this amount, select the number, press Delete , and type a new number.
68K	Whether this is a 680x0 application.
CFM-68K	Whether the application is designed to use the code fragment manager (CFM).
Power PC	Whether this is a PowerPC application.



Recovering missing or erased files

10

See [“Use Fast Find in Mac OS 8.1–9.x”](#) on page 181.

See [“Recover files with UnErase”](#) on page 187.

If you can't find a file on your disk, don't assume it has been deleted.

In Mac OS 8.1–9.x, use Fast Find to search for missing files and folders. Fast Find provides powerful search options to locate and work with files.

If Fast Find cannot locate a file, search for it with UnErase. UnErase can locate erased, damaged and otherwise unrecoverable files, even from badly damaged disks.



If you purchased Norton SystemWorks for Macintosh to recover missing files, do not install it on any disk that might contain the erased files. You could overwrite part of a file that you're trying to recover. See [“Start from the CD”](#) on page 33.

Use Fast Find in Mac OS 8.1–9.x

See [“Manage Fast Find search results”](#) on page 184.

In Mac OS 8.1–9.x, Fast Find lets you search local hard disks, removable media, and network drives. It can also search in the background while you are using another program. Fast Find also provides a variety of features to let you work with files once they are found.

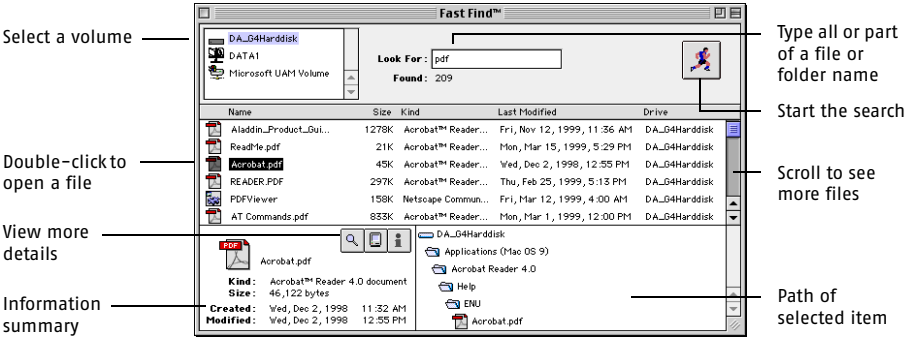
Start a Fast Find search

Use Fast Find any time that you have restarted in Mac OS 8.1-9.x or from the Norton SystemWorks for Macintosh CD.

To start a Fast Find search

- 1 Start Norton SystemWorks.
- 2 On the Utilities menu, click **Fast Find**.
- 3 Select the volume on which to search.
- 4 Specify search criteria.
You can search with a variety of criteria including file name, type or creator code. For example, in the Look For text box, type all or part of a file or folder name.
- 5 Click the running man icon.
Found files appear in the lower part of the search window.

See “Refine Fast Find search criteria” on page 182.



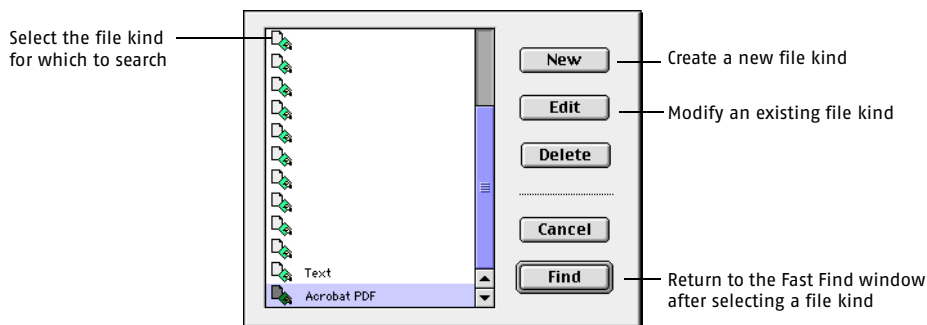
Refine Fast Find search criteria

Fast Find can locate files or folders by file name, type or creator, signature, or codes.

Refine a search by combining text in the Look For field with the selection of a file kind. For example, typing John in the Look For field and then clicking AppleScript files in the Find By Kind dialog box results in matches only for AppleScript files that contain John in their file names.

To locate files by kind

- 1 Start a Fast Find search.
- 2 On the Find menu, click **Find By Kind**.



- 3 In the Find by Kind dialog box, select a file type.
 If a program's kind is unavailable, you can create a new kind.
 See [“If a file's program is unavailable”](#) on page 183.
- 4 In the Look For field, type all or part of a file or folder name.
 If there is no file name text in the Look For field, Fast Find searches for all files of the selected kind.
- 5 Click **Find**.
- 6 In the Fast Find window, click the running man icon.

If a file's program is unavailable

Even if a program does not appear in the Find By Kind list, the Fast Find Type and Creator options let you find the program's related files.

To locate a file that was created by an unavailable program

- 1 Start a Fast Find search.
- 2 Search for any document by name that you know was created by the unavailable program.
 You need at least part of the file name.
- 3 In the found files list, select a document of the type that you want to create a Kind search for, then click **Info**.
- 4 Under Settings and Signature, note the Type and Creator codes for the file.
- 5 Use Fast Find to perform a Find by Kind.
 See [“To locate files by kind”](#) on page 183.

- 6
- Enter the Type and/or Creator codes for the search.
In most cases, the Creator signature is sufficient.
- 7
- Click **Search**.

Manage Fast Find search results

When Fast Find has located files, you can customize the file list’s appearance and work with the found files.

Customize the found files list

You can specify the file and folder details that appear in the found files list. You can customize the list to hide selected information, use a different-sized icon in the list of found files, or view data and resource fork sizes, Type, and Creator.

To customize the found files list

- 1
- Complete a Fast Find search.
See “[Start a Fast Find search](#)” on page 182.
- 2
- On the View menu, click **Customize**.
- 3
- In the Custom View Settings dialog box, select settings for the list of found files.
Your choices are:

Show Date	Day, date, and time that the file was last modified
Show Size	File size in kilobytes (KB)
Show Kind	Name of the item’s Type or its Creator program (for example, folder, SimpleText document, and so on)
Show Drive Name	Name of the disk on which the item is located
Show Technical Info	Resource and data fork sizes, and Type and Creator codes for the item

- 4
- Select a display icon size.
- 5
- Click **Done**.

Add a file to the found files list

See “Change file info, settings, and icons” on page 186.

The Fast Find Get Info window has useful file attribute editing features. Add a file to the Fast Find list in order to use these features.

To add a file to the Fast Find list

- ❖ In the Finder, drag any file or folder icon onto the **Fast Find** icon.

Work with found files

Use Fast Find to sort found files, launch programs, view documents, and change a file or folder’s technical information and icon.

To sort the found files

- ❖ In the found files list, click the **Name**, **Size**, **Kind**, **Last Modified**, or **Drive** column title.

The underscored column title indicates the current sort key.

To select multiple items

- ❖ In the found files list, Shift-click the items that you want to select. Location information does not appear for multiple selections.

To view general information about a found item

- ❖ In the found files list, click the item’s name. Its location appears in the lower-right pane, and information about the item appears in the lower-left pane.

To get information about the selected file or folder

- ❖ In the Fast Find window, in the lower-left pane, click the Info icon.

To show the selected file or folder in a Finder window

- ❖ Do one of the following:
 - On the keyboard, press **Command-S**.
 - In the Fast Find window, in the lower-left pane, click the computer icon.

The Contents window displays the first 32 KB of the file’s raw contents. This is a quick way to verify a data file’s contents.

To view a file’s contents

- ❖ In the Fast Find window, in the lower-left pane, click the magnifying glass icon. Some files have data forks and resource forks. The data fork usually contains the most useful information.

To locate the application that created a file

- ❖ In the found files list, press **Control** and click a file name.
The lower-right pane of the Fast Find window changes to show the location of the program rather than the file.

To open a document or launch a program

- ❖ Do one of the following:
 - Select the item and press **Command-O**.
 - Double-click the file name in the list of found files.The selected program is launched or the selected document is opened if the program that created it is found.
A beep indicates that a program could not be launched, for example, if the program that created the document is no longer on the disk, or if there is not enough memory to launch the program.

To move a file or folder to the Desktop or Trash

- 1 Select one or more items.
- 2 On the File menu, do one of the following:
 - Click **File > Move > To Desktop**.
 - Click **File > Move > To Trash**.Items that are moved to the Desktop or to the Trash can be returned to their folders with the Put Away command, which is on the File menu when the Finder is active.

To copy text from the Fast Find viewer to another program

- 1 Start a word processing program and create a new, empty document.
- 2 In the Fast Find file contents viewer, select the text that you want to copy and press **Command-C**.
- 3 Select the empty document and press **Command-V** to paste the contents into the document.
- 4 Save the document.

Change file info, settings, and icons

See “View file, folder, and disk information” on page 173.

Fast Find features let you review or change information about a file or folder. You can change the file or folder’s name, view or modify its Finder comment, lock or unlock it, change its signature codes (Type and Creator), attributes, and edit its icon.

To change information about the selected file or folder

- 1
- In the found files list, select a file or folder.
- 2
- In the Fast Find window, in the lower-left pane, click the Info icon.
Your options are:

General info	Shows General information, which is the same as that in the Finder Get Info window. Enter or modify the file or folder's comment or lock the file or folder. If Locked is checked, the comment can't be edited.
File Type and Creator signature	Lets you modify the File Name, Type and Creator codes and some of the item's Finder attributes. If you change a file's signature, the file might not load or launch. Do not make changes unless you are sure of what you are doing.
Icon	Lets you edit the appearance of a folder or file's icon, or delete it entirely.

To view Type and Creator information

- ❖
- In a file's Get Info window, double-click anywhere.
- !
- If you make changes to a file's icon in the Get Info window and click Update, clicking Cancel will not undo the changes.

To view and edit a file or folder's icon

- ❖
- Double-click the file or folder's icon.
You can personalize a file or folder's icon using paint tools, pattern palettes, and color palettes. If you change the icon, restart your computer for the changes to take effect.

Recover files with UnErase

If you have accidentally deleted files, if files are missing, or if Norton Disk Doctor reports that a disk is irreparably damaged, use UnErase to recover the files or data and move them to a safe location.

Chances of recovery are better if you use UnErase as soon as possible after an accidental deletion. If you can't find a file, you might need to restart from the CD or unmount the device before starting UnErase. Chances of recovery are also better if you keep Norton FileSaver files current, and if your disk fragmentation level is low.

See "Protect disks with Norton FileSaver updates" on page 62.

UnErase search methods

UnErase provides powerful search and data-recovery capabilities. The basic Quick Search operation is simple, almost completely automatic, and uses the method most likely to succeed. The process that UnErase uses is as follows:

- If FileSaver information is found on the disk, UnErase tries a combination of a FileSaver Search and Catalog Search.
- If no FileSaver information is found, UnErase first tries a Catalog Search.
- If this first Quick Search is unsuccessful, start a Customized Search and choose a Catalog Search, File Pattern Search, or Text Search. See [“Customized search options”](#) on page 199.

Before using UnErase

See [“The examination and repair process”](#) on page 154.

If files or folders have unexpectedly disappeared, there might be a problem with your directory. Run Norton Disk Doctor before searching with UnErase. Norton Disk Doctor might be able to repair a damaged directory.

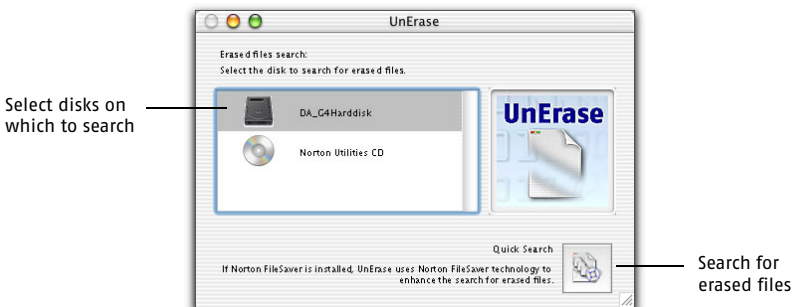
Double-check the Trash for the missing files or folders, and either empty or recover files from the Trash before using UnErase.

Start UnErase

When you start UnErase, disks appear in the UnErase list.

See [“Use Norton SystemWorks shortcuts”](#) on page 57.

There are contextual menu and drag and drop shortcuts that you can use with UnErase.



To start UnErase

- ❖ In the Norton SystemWorks main window, click **UnErase**.

If a disk doesn't appear (Mac OS 8.1–9.x)

In Mac OS X v10.1, all available disks mount automatically. In Mac OS 8.1–9.x, if a disk doesn't appear in the UnErase window, it might be damaged or not fully mounted.

To locate a missing disk in the UnErase window

- 1 Quit UnErase.
- 2 Wait to see if the disk appears on the Desktop.
- 3 Do one of the following:
 - If the disk appears on the Desktop, restart UnErase.
 - If the disk doesn't appear, try to locate it with the Show Missing Disks feature. See [“Locate missing disks in Mac OS 8.1–9.x”](#) on page 67.

Use Quick Search

See [“Sort or filter UnErase search results”](#) on page 190.

After you have started UnErase, select the disk on which the missing file was located and perform a Quick Search.

To perform a Quick Search

- 1 In the UnErase window, select the disk that contains the erased file.
- 2 Click **Quick Search**.
UnErase searches the selected disk for erased files and displays the results in the UnErase Search window.

If the file isn't found by Quick Search

If a missing file doesn't appear after a Quick Search, it might be on a different disk or need a more customized search.

Use the following options to continue searching:

- If the file might be on another disk, select that disk and perform another Quick Search.
- If you know that the missing file was on the disk that you searched, try a Customized Search. See [“Perform Catalog, File Type, and Text searches”](#) on page 198.

Manage UnErase search results

After performing a Quick Search, UnErase displays the results in the UnErase Search results window, along with an estimate of the file's recoverability.

Select one or more files or folders

Location of file before it was erased

View contents of selected file

Get information

UnErase Search

Customized Search...

Search Complete

DA G4Harddisk

Name	Size	Modification Date	Recoverability
Now Contact 3.5	523 bytes	Wednesday, May 2, 2001	Good
Now Up-to-Date 2.0	519 bytes	Wednesday, May 2, 2001	Good
Now Up-to-Date 3.5	527 bytes	Wednesday, May 2, 2001	Good
Outlook Express	519 bytes	Wednesday, May 2, 2001	Good
Pagemaker 4.x	531 bytes	Wednesday, May 2, 2001	Good
PageMaker 5.0	531 bytes	Wednesday, May 2, 2001	Good

Last location of selected file:

Norton Utilities Folder

Norton Tools

File Type Templates

Now Up-to-Date 3.5

234 items found 0 items filtered 527 bytes selected

View Contents

Get Info

Start Over

Filter List...

Recover

Select a customized search

Click a column title to sort the list

Estimate of file's recoverability

Size of selected item

If it is obtainable, the selected file's last location appears in the bottom pane of the UnErase Search window.

Sort or filter UnErase search results

When UnErase searches for erased files, it might display many files and folders that you don't want to see. You can sort the files in ascending or descending order by column. You can also apply a filter to hide unwanted files and folders in the display. If the recoverability estimate is low, you can select a filter to limit the time that UnErase spends searching for the file. You can also examine a file's contents to determine if it is worth recovering.

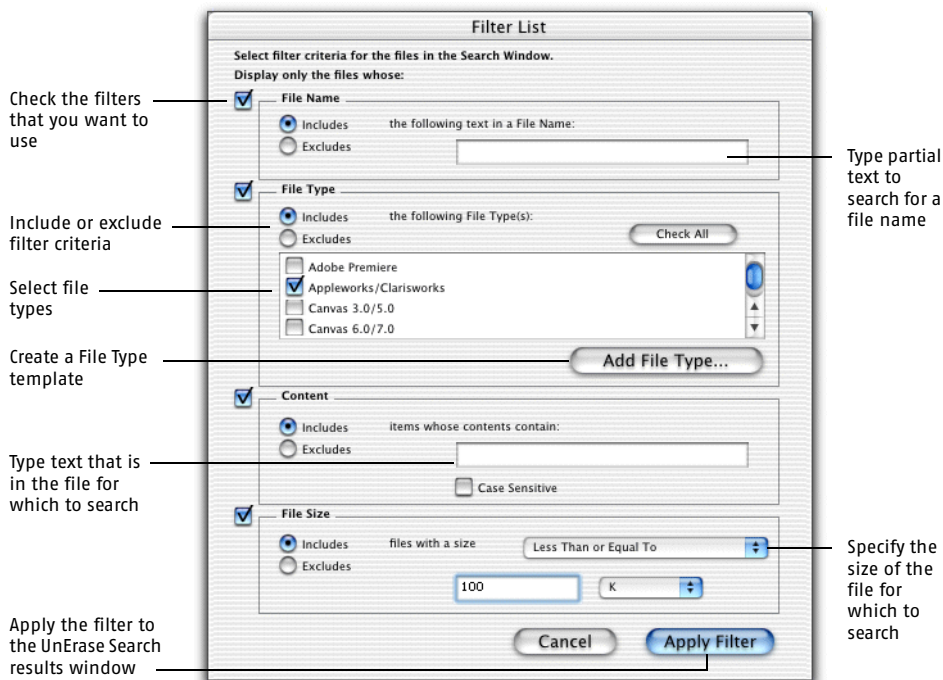
To sort the found files

- ❖ In the UnErase Search results window, click any column title.
The highlighted column title indicates the current sort order.

Use a filter to hide unwanted file and folder types in the UnErase Search results list.

To filter the list of found files

- 1 In the UnErase Search window, click **Filter List**.
In Mac OS X v10.1, this option is available when Hide Unrecoverable Files is unchecked.



- 2
- In the Filter List dialog box, check the filters that you want to use.
Your choices are:

File Name	Type the file name text to include or exclude in the results.
File Type	Select a file type and indicate whether to include or exclude it in the results. If you don't see the file type that you're looking for, you can create your own. See "Sort or filter UnErase search results" on page 190.
Content	Type the text that you want to include or exclude in the results list.
File Size	Select Less Than or Equal To or Greater Than or Equal To, type a value in the text box, and select K (kilobytes) or MB (megabytes).

- 3
- Click **Apply Filter**.

When you no longer need a filter, remove it from the UnErase search.

To remove a filter

- ❖
- In the UnErase Search window, click **Remove Filter**.

To change an active filter

- 1
- In the UnErase Search window, click **Filter List**.
- 2
- Make changes to the filter criteria.
- 3
- Click **Apply Filter**.

View a file's information or contents

In the UnErase Search results window, you can view more information about a file, or its contents.

Viewing the contents of an erased file can help you decide if you want to recover it or copy the contents into another file. You can do the following with a located file’s contents.

For more information	Action
See “Recover a file or folder” on page 194.	Recover the erased file.
See “View a file’s information or contents” on page 192.	View the erased file’s contents.
See “To copy text from an erased file” on page 193.	Select and copy the erased file’s contents.
See “Perform customized searches” on page 198.	Look for another erased file.
See “View file, folder, and disk information” on page 173.	Get more information about an erased file.



When you view files that do not contain plain text, you see information that looks like gibberish. This is computer code and does not mean that your file is damaged or unrecoverable. Look for fragments of text to help you determine whether the selected document is the one for which you’re searching.

To view the contents of an erased file

- 1 In the Search Results window, select one or more files.
- 2 Click **View Contents**.
The Contents window displays the raw contents of the file. Some files have data forks and resource forks. The data fork usually contains the information for which you’re searching.
- 3 Click **Data Fork** or **Resource Fork** to view the file’s data or resource fork contents.
If the file is very large, your computer might not have enough available memory to view all of its contents in the UnErase viewer.
- 4 When you’re done, click the close box.

To copy text from an erased file

- 1 Use your word processing program to create a new, empty document.
- 2 In the contents viewer, select text and press **Command-C**.
- 3 Select the empty document and press **Command-V** to paste the contents into the document.
- 4 Save the new document.

Recover a file or folder

When you have identified a file to recover, select a destination for the recovered file. Although you can recover an erased file to the same disk, it is safer to specify a Zip disk or other removable media, a network disk, or another hard disk if you have one. When you recover to the same disk, you jeopardize your chances of recovering other erased files.

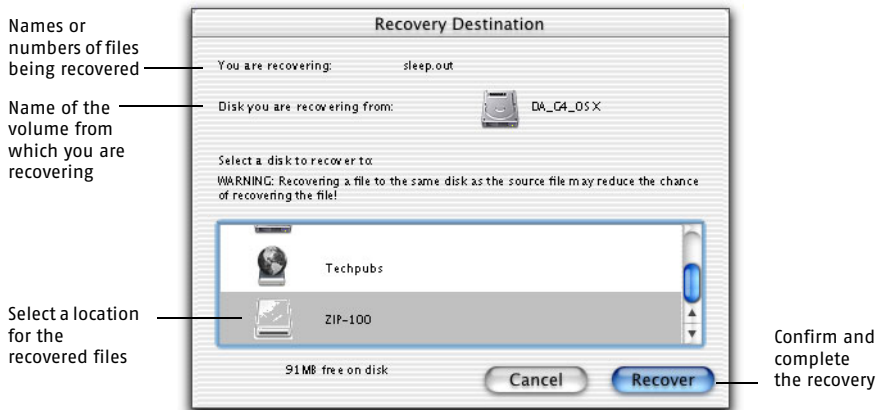
If your Macintosh has an internal floppy disk drive, UnErase can recover files to floppy disks. It can't recover files to floppy disks in external USB floppy-compatible devices. If you are recovering a file to a floppy disk and the file is larger than a single disk, be sure that you have enough floppy disks to hold the recovered file.

UnErase automatically splits large files across as many disks as necessary. Use UnErase to rejoin the files later.

See ["Rejoin recovered file segments"](#) on page 197.

To recover a file or folder

- 1 In the UnErase Search results list, select one or more items.
- 2 Click **Recover**.
- 3 Select a disk on which to save the recovered files.
If the destination disk doesn't have enough space, UnErase splits the file.



- 4 Click **Recover**.
UnErase recovers the files and displays a status message.

When UnErase recovers a file using a Quick Search or Catalog Search, it creates a folder with the same hierarchy and name as the last folder in

which the file resided. This folder is placed within a folder called Recovered Files.

If you have previously dragged a file to the Trash and then emptied the Trash, UnErase attempts to determine the folder from which the file was originally taken. However, if necessary, UnErase creates a Trash folder inside of the Recovered Files folder. Do not confuse this folder with the original Trash.

Restore recovered files

Some files need additional treatment before they are fully restored. You might need to join a file's data and resource forks on some file types or rejoin segments of a large file that was split into segments during recovery.

Join data and resource forks

When you recover an erased file that has a resource fork and a data fork, you might have to rejoin the two parts to restore the file to its original condition. In a File Type search, UnErase lists each fork as a separate file.

A *data fork* is the part of a file that contains text, graphics, or other modifiable information that you want to recover. Most document files have only a data fork, although some have data and resource forks. A recovered file that previously had a data fork and a resource fork might need only its data fork recovered. When a data fork is located during a File Type search, it is listed with a generic name identifying the document type, for example, Photoshop 2/3/4/5 #1.data. If you can't find a resource fork to help you name a file, you can rename a data fork once you have established the contents of the file.

A *resource fork* is the part of a file that contains information that is used by a program, such as menus, fonts, icons, or executable code. In the UnErase Search results list, the resource fork has the original file name and the suffix .rsrc. Most files that are created in Mac OS X do not have resource forks.

Match data and resource forks

If you sorted the list of found files, restore the original sort order to see which forks are physically adjacent. Because the data and resource forks of a file are often physically adjacent on a disk, a data fork can often be identified by looking at the name of the resource fork nearest to it. For example, if you find a file called Photoshop 3/4/5 #25.data, and next to it is

a resource fork with a Photoshop icon and the name Cover Photo.rsrc, these forks probably belong to the same file. When you have found two forks that appear to match, join them.

To restore the order in which files were found

- ❖ In the search results list, press **Option** and click any column heading. This removes any sorting from the list.

Once you have located matching data and resource forks, you can join them.

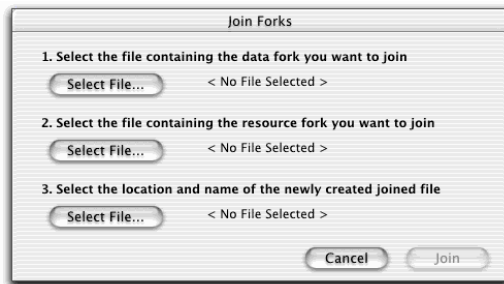
To join a resource and data fork from the Search Results window

- 1 In the search results list, select one resource fork.
- 2 Select one data fork.
Use the Command key to select nonadjacent files. Do not select more than one data and one resource fork.
- 3 On the Tools menu, click **Join Forks**.
For most file types, the original file name is filled in for you, but some searches recover files with generic file names.
- 4 If necessary, rename the file.
- 5 Click **Save** to save the joined file.

If you have already recovered the resource and data forks, you can use UnErase to join them.

To join previously recovered resource and data forks

- 1 Start UnErase.
- 2 On the Tools menu, click **Join Forks**.



- 3 In the Join Forks dialog box, click the first **Select File** button.
- 4 Locate the Recovered Files folder, then select the data fork.

- 5 Click **Open**.
The file name appears next to the first Select File button.
- 6 Click the second **Select File** button.
- 7 Locate the Recovered Files folder, then select the resource fork.
- 8 Click **Open**.
The file name appears next to the second Select File button.
- 9 Click the third **Select File** button.
- 10 Select a location, then type a name for the joined file.
- 11 Click **Save**.
- 12 Click **Join**.
UnErase displays the status of the joined file.
You should now be able to open the file using the program that created it.

If you are unable to join forks

If you are not successful in joining resource and data forks, save the data from the data fork by copying it to another file.

Rejoin recovered file segments

If your Macintosh has an internal floppy disk drive, UnErase can recover files to floppy disks, in floppy disk-sized segments. It can't recover files to floppy disks in external USB floppy-compatible devices.

To rejoin recovered file segments

- 1 Insert the floppy disk with the first segment of the recovered file.
The first segment is named <filename>#1 with subsequent segments numbered consecutively.
- 2 On the Tools menu, click **Join Split Recovered Files**.
- 3 Select the first segment of the file to be recovered.
- 4 Click **Rejoin**.
- 5 Type a name and destination for the recovered file.
- 6 Click **Save**.
UnErase completes the process, prompting you to insert the disks with the file segments as necessary.

Perform customized searches

A customized search might find erased files that are not found through a Quick Search. Available options in customized searches include Catalog, File Type, and Text searches. A customized search is also the best way to recover files from a disk with irreparable directory damage when Norton Disk Doctor and Volume Recover can't restore your disk.

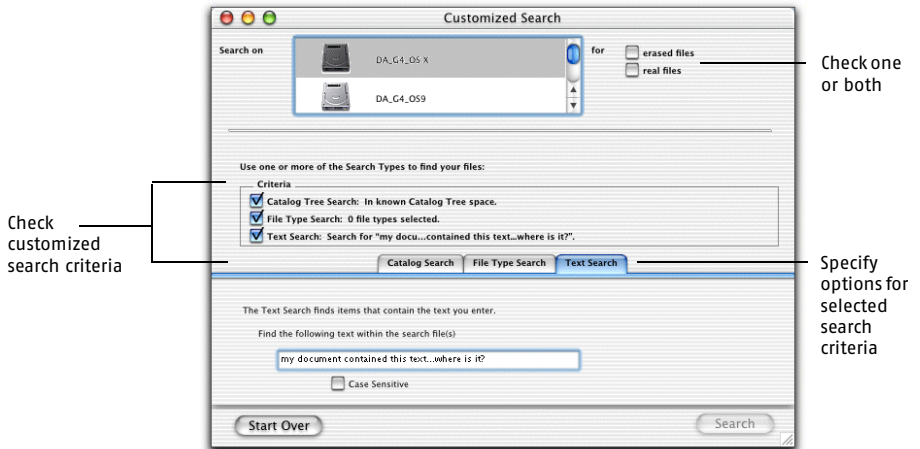
If the first customized search method is unsuccessful, try another, or combine them.

Perform Catalog, File Type, and Text searches

If a Catalog Search is unsuccessful but you know which program was used to create a lost file, try a File Type Search, or use a Text Search to search for specific text within a file.

To perform a customized search

- 1 Do one of the following:
 - In the Search Results window, click **Customized Search**.
 - On the Tools menu, click **Customized Search**.



- 2 Select the disk on which to search.

- 3
- Check the types of files to include.
Your options are:

Erased files	UnErase searches for files in the unused and erased files area of your disk. If your disk is healthy, this is the best choice.
Real files	UnErase searches currently used areas of your hard disk. If your disk directory information has been damaged, check both real files and erased files for best results.

- 4
- Under Criteria, check the search options for this search.
- 5
- On the search tabs, specify the details for your customized search.
- 6
- Click **Search**.

Customized search options

You can use customized search options alone or in combination. Depending on the type of file that you are searching for, combined searches can yield fewer or no results. You might have to experiment with customized searches to achieve the desired results.

Catalog Tree Search

The Catalog Tree Search searches the disk directory for valid file records. Use this method first, with Search entire disk unchecked, if:

- Your hard disk has crashed or a large number of files have unexpectedly disappeared.
- Directories are damaged and you are trying to recover files that were not erased but can't be located due to damage.

If you are looking only for erased files, and your hard disk is healthy, do not select the Search entire disk for parts of the catalog tree option. Searching the entire disk slows the search significantly.

File Type Search

Use a File Type Search to look for files that were created by specific programs. This search method is most useful when a Quick Search has not found the erased files that you need or when the Catalog Search is unsuccessful.

If a program doesn't appear in the File Types list, use the Add File Type feature to create a new file type.

See ["Create File Type templates"](#) on page 201.

The Search for Resource Forks option in the File Type Search is useful for recovering fonts, as well as programs' preferences files that can't be found as specific program file types.

To search by File Type

- 1 On the File Type Search tab, check the programs with file types for which you want to search.
- 2 To add a new file type to the search, click **Add File Type**. This lets you create a template to use for searching.
- 3 To include all resource forks in the search, check **Search for Resource Forks**.
If this option is not checked, UnErase finds only the resource forks that belong to the selected File Types.

See ["Create File Type templates"](#) on page 201.



By default, the File Type Search maximum size is set to 40960 KB and Text Search maximum size is 32 KB. If the files that are found are too large or too small, adjust this size in UnErase Preferences. See ["Set UnErase preferences"](#) on page 203.

See ["Join data and resource forks"](#) on page 195.

Because directory information is not referenced in a File Type Search, the UnErase window lists the located files with generic file names (such as Photoshop 2/3/4/5 #1, and so on). Rename the files after you recover them.

Text Search

A Text Search searches for words or phrases that are inside of a file's contents. Directory information is not referenced. Use a Text Search to find word processing documents or other text-based data files, or when you can't remember the name of an erased text file. Text Searches are also useful for finding email messages that you have saved on a disk. Type your email address as the search text.

If you want to search for a recently deleted text file with a Customized Text Search, restart your computer before starting the search. This updates the disk's Allocation file and helps UnErase locate the deleted file.

To use a Text Search

- 1 In the Customized Search window, on the Text Search tab, type a word or phrase that is in the file.
- 2 To restrict the search, click **Case Sensitive**.
- 3 Click **Search**.
The found files list displays generic file names (such as Text File #1 and so on).
- 4 When you've verified that the information in the found files is what you expected, you can recover and rename the files.

See "Manage Fast Find search results" on page 184.

See "Recover a file or folder" on page 194.

Create File Type templates

A File Type template lets UnErase associate files with a program. You create this reusable template by selecting examples of files that were created by the program.

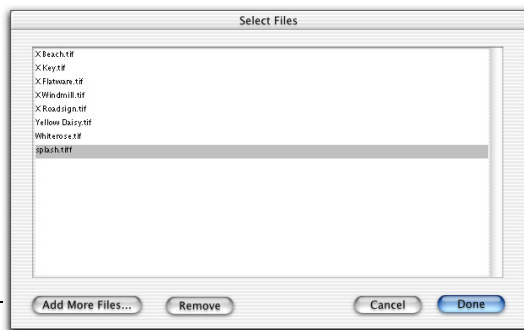
When you create the File Type template, select files of exactly the same type as the file that you want to recover. Do not mix file types in the template, even if the program can create more than one file type. For example, if a program can create word processing or spreadsheet documents, create one template for the word processing documents and another template for the spreadsheet documents.

To create a File Type template

- 1 Do one of the following:
 - In the UnErase main window, on the Tools menu, click **Create File Type Template**.
 - In the Customized Search window, click **Add File Type**.

Add files of the same type

Add files to the list



- 2 In the Select Files dialog box, click **Add More Files**.

- 3 Locate the first file to include in the template, and click **Add**.
- 4 Continue adding files of the same type.
For best results, add at least ten files of the same type.
- 5 Click **Done**.
- 6 Enter a location and name for the File Type template.
Save the new template to the File Type templates folder in the Norton Tools folder. During a search, UnErase looks in this folder for File Type templates.
- 7 Type a file name.
Use a name that will help you remember the file type.
- 8 Click **Save**.

If you need to use custom File Type templates when starting from the CD

UnErase looks for File Type templates in a location that is specified in the UnErase preferences. To use custom File Type templates after restarting from the Norton SystemWorks for Macintosh CD or another startup disk, make the File Type templates folder available in another location.

To create a backup copy of the File Type templates folder

- 1 Copy the File Type templates folder from the Norton SystemWorks for Macintosh CD to another disk such as a floppy disk, a Zip disk, or another hard disk.
- 2 Copy your custom File Type template into this folder.

To access File Type templates when started from another disk

- 1 Restart UnErase from the Norton SystemWorks for Macintosh CD or another disk.
- 2 Do one of the following:
 - Mac OS X v10.1: On the UnErase menu, click **Preferences**.
 - Mac OS 8.1-9.x: On the Edit menu, click **Preferences**.
- 3 Click **Select Folder**.
- 4 In the Choose a Folder dialog box, select the File Type template folder.
- 5 Click **Choose**.
UnErase uses the selected File Type template folder for the File Type search.

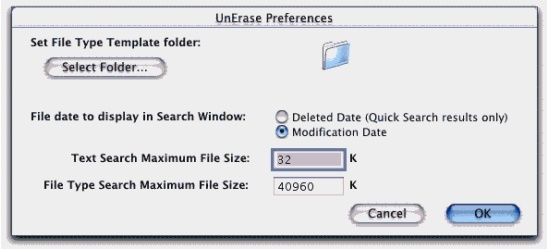
See “Start from the CD” on page 33.

Set UnErase preferences

UnErase preferences let you specify the location of the File Type templates folder, the maximum recovered file size for a Text or File Type Search, and the file date to display in the UnErase Search window.

To set UnErase preferences

- 1
- Start UnErase.
- 2
- Do one of the following:
 - Mac OS X v10.1: On the UnErase menu, click **Preferences**.
 - Mac OS 8.1-9.x: On the Edit menu, click **Preferences**.



- 3
- Make your selections.
Your choices are:

Set File Type Template folder	Specify the default location for File Type templates. The default location is in the Norton Tools folder.
File date to display in Search Window	Select the date to display in the list of found files. Deletion dates can only be displayed for files that were found in a Quick Search using FileSaver data. Modification dates can be displayed for files that were found using Quick Search or Catalog Tree search.
Text Search Maximum File Size	The maximum size of the largest file that you want to recover using a Text search. The default is 32 KB, which is the maximum size text file that can be opened by SimpleText.
File Type Search Maximum File Size	The maximum size of the largest file that you want to recover using a File Type search. The default size is 40960 KB.

- 4
- Click **OK**.



Enhancing performance and security

11

Improve a computer's performance

Speed Disk is a powerful optimization utility that defragments files and free space and organizes files on the disk to provide faster performance. It lets you customize file arrangement to match your computing activity. Speed Disk is available in Mac OS 8.1-9.x and when started from the Norton SystemWorks for Macintosh CD.

A normally functioning disk is a good indicator that the rest of your computer is functioning normally. DiskLight, which is available in Mac OS 8.1-9.x, keeps you informed of disk read and write activity.

System Info, which is available in Mac OS 8.1-9.x and when started from the CD, compares your computer's performance with standard benchmarks and provides a detailed inventory of your Macintosh, including peripherals, network connections, Internet connection, disk space, memory usage, and performance benchmarks.

Why disk performance degrades

When the disk space that is allocated to a file is no longer adequate, pieces of the file are placed elsewhere on the disk. As more files are added to a disk, the disk's free space is also divided. When this happens, the disk is described as being fragmented.

When a fragmented file is accessed, disk performance is slower because the drive head must do more work to locate, load, save, and keep track of the fragments of the file.

Fragmentation also affects video and other multimedia performance. For example, if a multimedia file such as a movie is being played and the movie file is fragmented, the player might have to wait longer for the next fragment to load, causing the movie to pause during playback.

Speed Disk can eliminate file fragmentation by consolidating free space and arranging your disk data for optimal use. Speed Disk checks the readability of the sectors on your disk and makes sure that the file allocation information that is recorded in the directory corresponds to the actual files on the disk. Speed Disk notifies you if it encounters problems and prompts you to use Norton Disk Doctor for diagnosis and repair.



Mac OS X uses a lot of temporary files that can slow disk performance. Start from the Norton SystemWorks for Macintosh CD and use Speed Disk regularly to optimize a Mac OS X boot disk.

About optimization and file fragmentation

The terms *defragmentation* and *optimization* are often used interchangeably, but they are not the same.

- Defragmentation is the process of arranging the way that files are organized on a disk so that the data that comprises each file is stored in adjacent blocks.
- Optimization is the process of arranging the way that files are organized on a disk so that frequently used files and file types can be accessed easily.

How Speed Disk defragments

Speed Disk defragments files by rearranging file fragments into adjacent or contiguous blocks. When the disk head can access all of the file data in one location, the file is read into memory faster.

About free space fragmentation

Free space can be fragmented just as a file can. Virtual memory and some applications require large areas of contiguous free space for temporary files. Highly fragmented free space causes files to become fragmented more quickly. You might have 10 MB free on a disk, but if it is fragmented into 100 fragments of 100 KB each, your computer will have to work harder to locate and use this available space. Use Speed Disk to create a larger block of free disk space for virtual memory.

Free space can't be defragmented directly. To consolidate free space, either optimize your disk completely or use the disk map to identify files that cause free space to be fragmented. Then back up and delete these files.

How Speed Disk optimizes

Speed Disk optimizes your disk by placing files on the disk according to file type. For example, system files are placed together where they can be accessed efficiently. Desktop files, documents, and other frequently used files are placed adjacent to free space where they have room to grow with minimal fragmentation.

Optimization maximizes the usable free space on a disk and groups files based on how they are accessed. The most frequently used files are placed where they can be accessed in the shortest time. Infrequently used files are placed out of the way. Free space is consolidated to avoid fragmenting newly added files. Extra space is added after major data structures so that they can expand without becoming fragmented again.

Optimization can improve performance, both after initial optimization and on a continuing basis. Speed Disk can also optimize free space, creating contiguous free space on the disk. Having the maximum amount of contiguous free space improves computer performance, especially if your computer has limited free space. When free space is limited and fragmented, new files will be fragmented the first time they are saved to the disk. When you open a fragmented file, the disk drive must work harder to retrieve and manage all the fragments of the file, and the computer's performance slows down.

Phases of optimization

Speed Disk goes through several phases in the course of optimization. The progress appears in the Speed Disk window.

Optimization phase	Description
Interpreting profile	Speed Disk checks which profile has been selected.
Checking Catalog B-Tree	Speed Disk checks the disk's directories to ensure that all data can be found and that there are no problems that will prevent a successful optimization. If problems are found at this stage, run Norton Disk Doctor.

Optimization phase	Description
Analyzing files	Speed Disk analyzes the files that are found in the directory and gathers information about the categories that the files fit into and how many files of each file type are present. It also determines the degree of file and free space fragmentation.
Rechecking files	Speed Disk rechecks files for fragmentation.
Creating color image	Speed Disk creates a color map of the disk, showing the various categories of files.
Creating goal state	Speed Disk determines where each file will be placed during optimization, according to the profile that is selected.
Optimizing	Speed Disk moves the files into the areas of the disk that are assigned to their types. See “Select a Speed Disk profile” on page 215.

Before you use Speed Disk

Before optimizing any disks, make the following preparations.

Preparatory step	Reason for performing
Run Norton Disk Doctor to identify and repair any bad blocks.	Although Speed Disk automatically checks for errors before optimizing, it's best to run Norton Disk Doctor to identify and repair any file or directory damage that could cause problems during optimization. Run Norton Disk Doctor to ensure that lost file fragments are not included in the optimization. Ensure that the Verify Media and Verify Directories options are checked. See “Run Norton Disk Doctor tests” on page 159.
Delete temporary and obsolete files such as any Internet temporary files, the Trash, and so on.	This avoids the extra work of optimizing obsolete, unused, and trash files that consume optimization time and resources. Including these files in optimization means that useful space will be occupied by useless files, which causes the disk to become refragmented when these files are emptied from the Trash or erased from temporary folders.
Complete any major software installations or uninstallations before optimizing.	This reduces the need to reoptimize after the installation or uninstallation. Typically, installation processes create temporary files and occupy large amounts of space temporarily. Uninstalling programs after optimizing creates unnecessary work.

Preparatory step	Reason for performing
Back up your files.	Although Speed Disk maintains the integrity of your data, back up important files before making any major changes to your disks, including optimization. Maintain a schedule of regular backups.
Ensure that your disk driver has been updated with the latest version of the manufacturer's formatting software.	Your computer and disk drive must communicate properly. Consider updating or reinstalling your disk driver to ensure that the driver is functioning correctly when you optimize. If your disk is factory installed, use the disk setup software that came with your computer, for example, Apple's Drive Setup utility. Otherwise, either use the software that came with the disk or contact the manufacturer for the current driver.
Remove any driver-level security software, or remove any other write protection on the disk.	Some copy-protected applications use hidden files that are placed in specific locations on a disk. You might need to uninstall before optimizing and then reinstall after optimizing to ensure that those files remain in their expected locations. To accommodate this requirement without uninstalling the application, customize a Speed Disk profile. See "Customize optimization" on page 214.

Start Speed Disk

Speed Disk runs in Mac OS 8.1-9.x. If you want to optimize your startup disk, you must start from the CD or another disk.

To start Speed Disk




- 1 In the Norton SystemWorks main window, click **Speed Disk**.
- 2 In the dialog box that appears, read the cautionary message.
- 3 To prevent the dialog box from appearing again, check **Don't show this alert again**.
- 4 Click **OK**.
When you start Speed Disk, the available disks appear in the window. On the selected disk's map, used areas appear in black and free areas in white.

View fragmentation status

See “Defragment files” on page 211.

In the upper right of the Speed Disk window is a list of mounted disks and their fragmentation levels.

You cannot optimize your startup disk, the Speed Disk application disk, or a locked disk. Small icons to the left of disk icons indicate the disk’s potential for optimization.

Macintosh icon		The disk contains open Mac OS System files and can’t be optimized.
Application icon		The disk contains the Speed Disk application and can’t be optimized.
Lock icon		The disk is locked and can’t be optimized or defragmented.

Optimize a disk

When you have identified the disk that you want to optimize, you can proceed. To optimize your startup disk, you must be restarted from the CD.

The time that it takes to optimize a disk varies depending on the disk fragmentation and the type of media. For example, optimizing USB devices takes more time than optimizing SCSI, ATA, or FireWire devices.

A disk’s first optimization might take longer than subsequent optimizations. Speed Disk must move the files and free space into the order that is described in the selected profile.

To optimize a disk

- 1 In the Speed Disk window, select a disk.
- 2 To analyze the disk before performing the optimization, click **Check Disk**.
- 3 Click **Optimize**.
Speed Disk starts optimizing the selected disk.
If you are trying to optimize your disk and documents or other non-system files are open, a message appears. You can click **Show Open Files** to display a list of open files, and then close them before continuing.
- 4 If bad blocks are found, run Norton Disk Doctor Media Check to correct them or mark them to prevent further use.
Marking bad blocks does not eliminate them from the disk. To ensure future data integrity, back up disks containing bad blocks and reformat them using the disk's formatting software.

When optimization is complete, Speed Disk has defragmented files and arranged file types for optimal use.

If Norton FileSaver is enabled for an optimized disk

In Mac OS 8.1-9.x, if Norton FileSaver is enabled for the optimized disk, Speed Disk notifies Norton FileSaver to update its disk tracking information immediately following optimization.

In Mac OS X v10.1, or if you restarted from the CD to optimize a boot disk, Norton FileSaver updates information after you restart your computer.

If you want to optimize a startup disk

See [“Start from the CD”](#) on page 33.

To optimize your startup disk, restart your computer from another disk or from the Norton SystemWorks for Macintosh CD.

Defragment files

See [“View fragmentation status”](#) on page 210.

The optimization process can't work with files that are open or in use by the Mac OS System, locked disks, or unmountable partitions. Your startup disk always has open files, so you must start from the Norton SystemWorks for Macintosh CD or another designated disk to optimize your startup disk. You can still defragment files on disks that have files in use.

See “View details in the disk map” on page 213.

Although defragmenting files is not as complete as the entire optimization process, it improves disk performance. Defragmenting files also increases the likelihood of recovering accidentally erased files intact rather than in fragments. You can defragment all files or select the largest or most fragmented files.

There must be enough adjacent free space on a disk for the files to be fully defragmented. If free space is too fragmented, you might need to optimize the entire disk or delete files from the disk to increase available free space. Look at the detail view to see which files in the disk map lie adjacent to free space and might be usefully deleted.

Some types of files, for example, large database files, fragment rapidly. Use Speed Disk to identify the fragmentation levels of these files, and then defragment them.

To view and defragment selected files

- 1 In the Speed Disk window, select a disk.
- 2 On the Explore menu, click **Show Fragmented Files**.
The Fragmented Files dialog box lists all of the fragmented files, their sizes, and the number of fragments.
Some files can’t be defragmented. The reasons for their unavailability are listed in the Note column.
- 3 To sort the list, click the **File**, **Size**, or **Fragments** column heading.
- 4 In the Fragmented File dialog box, do one of the following:
 - Select one or more files for defragmentation.
 - To select all files, press **Command-A**.
- 5 Click **Defragment Selected Files**.

Display more disk information

You can view more detailed information about a disk, including disk statistics and a close-up view of the disk blocks.

To use advanced options

- 1 In the Speed Disk window, select a disk.
- 2 On the Explore menu, click **Show Info**.
More information appears at the bottom of the Speed Disk main window. It gives more detail about the fragmentation of the disk, as well as the disk's format, HFS or HFS Extended, and the number and size of allocation blocks on the disk.
- 3 Select one of the following advanced options:

View	Displays a detailed view
Current	Displays the current fragmentation in the disk map
Final	Displays how the disk will look after optimization

About the disk map

The disk map indicates which parts of the disk are occupied and which are free, and lets you follow the optimization progress.

After Speed Disk checks the disk, the map is redrawn with each file type shown in a different color, or in shades of gray on grayscale monitors. White space indicates areas of the disk on which no data is stored.

If the map is too large to fit in the window, you can scroll up and down to view disk map activity.

View details in the disk map

Use the Detail View to view details of each block in the disk map. When you move the cursor over the disk map, the cursor becomes a small magnifying glass with which you can see the Detail View. The Detail View displays the block number and, after Check Disk is run, the file name and type of file under the magnifying glass.

If you have already run Check Disk, the Detail View window also reports the name and type of file that occupies the block under the cursor.

To view the color legend

- ❖ In the lower left of the Detail View window, click the **Kind** triangle.

To view all of the file types that are identified by the disk map

- ❖ In the color legend, scroll up or down.

Locate a file in the disk map

You can locate a file name and have Speed Disk identify its location in the disk map.

To locate a file in the disk map

- 1 In the Speed Disk window, select a disk.
- 2 On the Explore menu, click **Show File In Map**.
- 3 In the Choose a File dialog box, select the file that you want to find.
- 4 Click **Choose**.
The file for which you are searching will blink in the disk map. If the file is small, its blocks might be difficult to locate. Move the magnifying glass over the disk map and look for the blinking blocks in the Detail View.

About unmovable files

Some files and file fragments are classified as unmovable. Files that designate bad blocks on the disk, and some types of security files, can't be moved. These files are called *anchor files*.

Fragments on the disk that are identified by Speed Disk as unmovable are not moved during optimization. You can also designate any file or group of files to be unmovable.

Customize optimization

See [“Set Speed Disk preferences”](#) on page 222.

Speed Disk comes with predefined *profiles* that define how file types are arranged on a disk during optimization. For example, if you work with a lot of multimedia files, you can select the Multimedia profile, and Speed Disk optimizes your disk according to the typical activities of multimedia file users. If no built-in profile meets your needs, you can design your own with the Speed Disk Profile Editor.

Select a Speed Disk profile

Speed Disk normally runs with the General Use profile. This setting usually provides the best performance, and doesn't need to be changed unless your files require special consideration. Other built-in profiles are designed for CD mastering, heavy multimedia use, and consolidating free space.

To select a Speed Disk profile

- 1 Open Speed Disk.
- 2 On the Disks menu, select a profile.
Your choices are:

General Use	Optimizes and groups similar file types. Places free space in the middle of the disk. Places items in the Trash and Temporary Items folders adjacent to free space so that they do not cause the free space to fragment when they are deleted.
Multimedia	Quickly maximizes adjacent free space without optimizing the disk. Ideal when preparing to create a large file that should not be fragmented. Using the Multimedia profile, Speed Disk rearranges files quickly but does not defragment them or optimize their placement. Selecting this profile might even cause further file fragmentation.
Software Development	The same as General Use but moves project files and source files close to free space.
CD-ROM Mastering	Optimizes and places files, including hidden FileSaver files, at the front of the disk. This profile assumes that no files will be deleted from the disk before mastering.
Recently Used Files	Defragments the most recently used files and places them next to free space. Does not optimize the disk. Use this profile to defragment frequently used files.
Disk Resizing	Like CD-ROM Mastering but places items in the Trash and Temporary Items folders next to free space. Useful when preparing to resize a partition that was created by formatting software.
Speed Disk 3.2	Uses the optimization pattern from Speed Disk 3.2. The Speed Disk 3.2 profile uses fewer file types than the other profiles. If you optimize a disk with this profile and then check the disk using another profile, the disk might not appear to be optimized.

About the Speed Disk Profile Editor

In a Speed Disk profile, file types are associated with categories. Categories are defined by criteria such as frequent and infrequent usage. When Speed Disk is optimizing a disk, it refers to the active profile to place each file according to its associated category.

You can use the Speed Disk Profile Editor to view the built-in profiles and to create your own profiles. In a profile, you can specify the order of Speed Disk categories and associate files with categories.

Create a Speed Disk profile

The Speed Disk Profile Editor lets you create profiles so you can control file placement during optimization. In a profile, you match file and folder types with their categories, and specify other criteria such as anchor files and file signatures. The Speed Disk Profile Editor provides a list of optimization goals to assist you in arranging the categories for maximum benefit.

To create a Speed Disk profile

- 1 In the Norton Tools folder, double-click **Speed Disk Profile Editor**.
- 2 On the Edit menu, click **New Profile**.
- 3 In the resource window, double-click the **Untitled Profile** to open the Profile window.
- 4 In the Profile name field, type a distinctive name for this profile.
- 5 In the Menu position list, select a position.
This assigns the profile's position on the Speed Disk Options > Optimize For menu.
- 6 In the Goal list, select the goal for this optimization profile.
Your options are:

Standard optimization	Defragments files, groups them by category, and arranges the categories in order in the Categories list.
Minimal optimization	Defragments files and moves them to the front of the disk without grouping them by category or moving them to a specific location on the disk.
Defragment only	Defragments files without grouping them by category or moving them to a specific location on the disk.
Maximize free space	Consolidates all free space. Files are not defragmented.

- 7 Check or uncheck the setting for **Rebuild Desktop After Optimization**.
When this is checked, Speed Disk rebuilds the Desktop after optimizations that use the selected profile. This is recommended for CD Mastering only.
- 8 Type a comment in the Comment field to describe the profile if necessary.
- 9 Modify the Categories.
- 10 On the File menu, click **Save**.
Save the resource file in the Speed Disk Profiles folder, which is located in the Norton Tools folder. If the resource file is saved to a different location, the custom profiles will not appear on the Speed Disk Optimize For menu unless you add them with the Add Profiles command. For more information, turn on Balloon Help in the Speed Disk Profile Editor.

See [“About profile categories”](#) on page 218.

Edit a custom profile

You can change a custom Speed Disk profile.

To edit an existing profile

- 1 In the Norton Tools folder, double-click **Speed Disk Profile Editor**.
- 2 Open the file that contains the profile to edit.
- 3 On the Edit menu, click **Open Profile**.
- 4 Select the profile editor whose profiles you want to edit.
- 5 In the Profiles window, double-click a profile to edit.
- 6 Make any of the following changes to the selected profile:

For more information	Action
See “Edit profile categories” on page 218.	Edit profile categories.
See “Work with match specifications” on page 220.	Edit match specifications.
See “Work with anchor specifications” on page 221.	Edit an anchor specification.
See “Work with match signatures” on page 221.	Specify match signatures.
See “Work with match folders” on page 222.	Specify match folders.

- 7 To change the order of categories, drag them to a new position in the list.
Except for anchored files, Speed Disk arranges files in the same order as the categories are listed.
- 8 On the File menu, click **Save**.

About profile categories

Categories are groups of files with the same characteristics. Speed Disk arranges files on disks according to their profile categories.

When you create a profile, it already contains the necessary categories to guarantee a successful optimization. You can change only the names of these categories and the associated color that is displayed in the Speed Disk disk map.

You can add predefined optional categories and user-defined categories to the list of required categories.

Edit profile categories

There are eight profile categories. Certain category types (Defective, Directory, Anchored, Attribute, and Free Space) are required to appear in every profile.

You can modify the priority order of any listed category or create your own new category by pressing Command-K. New categories appear as Untitled at the bottom of the category window with a default priority of 156.

Dragging or pasting a category type into a profile replaces the existing category of the same type. Other optional category types (such as Desktop and FileSaver Index) can appear only once in a profile, so dragging or pasting one into a profile can also replace an existing category.

You can assign any category to any file type. However, you should use your installed applications' file types.

See ["About the disk map"](#) on page 213.

You can see a file's type in the disk map's Detail View. To see an application's file type in the Finder, use the Finder's Get Info command.

To edit Speed Disk profile categories

- 1 Start the Speed Disk Profile Editor.
- 2 Open a profile.
- 3 Double-click a category.

4 Change the profile categories as necessary.

Name	The category name, usually associated with its primary file type.
Color	You can change a category's color by selecting the color and then selecting another from the Mac OS color picker. The Unoptimized color will be a muted version of the selected color.
Sorting	<p>The order in which the files are physically placed on the disk within this category.</p> <ul style="list-style-type: none"> ■ None: No sorting occurs during optimization. ■ Ascending Modification Date: Files are sorted with the most recent date closest to the end of the disk. ■ Descending Modification Date: Files are sorted with the earliest date closest to the end of the disk. <p>This category is user-defined and optional.</p>
Priority	Whether this category should remain in its current position on the disk. For example, anchored files have the highest priority to remain at their anchored positions, even if the optimization process would otherwise place a different file in that location. The priority values are: 1=lowest, 256=highest. If a file matches more than one category, it is assigned to the highest-priority category that it matches. This category is user-defined and optional. See “Work with anchor specifications” on page 221.
Anchored	<p>Whether a file is unmovable. Certain types of files, including some copy protection and security programs, can only be moved by their creator applications.</p> <p>The most common reason not to move a file is that it is a security file that was installed for copy protection purposes. If you own software that installs such a file, you can create a custom specification for that file to anchor it. You can then run Speed Disk and optimize your disk without having to uninstall and reinstall that software. This category is user-defined and optional.</p>
Match Specifications	What file type specifications match. Double-click the default match specification to open the Match Specifications window. This category is user-defined and optional.

Work with match specifications

In a Speed Disk profile you can match a file to any specified category so that it is included in the optimization criteria for that category. You can edit the match specification for any category so that the files that match a specification are included in that category.

Edit match specification criteria

There are five match specification criteria that you can set.

To edit match specification criteria

- 1 Start the Speed Disk Profile Editor.
- 2 Open a profile.
- 3 Select a match specification.
- 4 In the Match Spec window, adjust the criteria.

Criteria	Description
Visibility	Options for visible files in a match specification are: <ul style="list-style-type: none">■ Visible and invisible files.■ Visible files only.■ Invisible files.
Aliases	Whether the match specification should include aliases.
Label	Whether to consider the Finder's labels as part of the match specification criteria and if so, which label to match.
Signatures	Which signatures, if any, are associated with the specification. If no signatures are listed, a file's signature is ignored for this specification.
Folders	Which folders, if any, are associated with the specification. Only files in these folders are considered to match the specification. If no folders are listed, a file's folder is ignored for this specification.

- 5 Close the Match Spec window.

Work with anchor specifications

Any file that should not be moved during optimization can be identified using an anchor specification. For example, some copy protection schemes use a file's location to determine if an authorized copy of the program is installed on the computer. For your convenience, anchor specifications apply to all profiles that are installed or added to Speed Disk.

Edit the anchor specification by entering the file type and creator codes. You can then edit the match specification for that category, so that files that match the specification are part of that category and will be anchored.

To edit an anchor specification

- 1 Start the Speed Disk Profile Editor.
- 2 Open a profile.
- 3 Double-click an anchor specification.
- 4 To enter file type and creator codes, select one of the following:

Choose Example File	Select a file with the file type and creator codes that you want.
Any file type or Any creator	Specify one of these for the anchor spec.

- 5 Select a file visibility setting.
- 6 Close the Anchor Spec window.

Work with match signatures

The Signature window is similar to the Anchor Spec window but it does not have file visibility choices. In the Signature window, you can specify a file signature as one of the user-defined match specification categories.

To specify match signatures

- 1 Start the Speed Disk Profile Editor.
- 2 Open a profile.
- 3 In a profile, double-click an optional category.
- 4 In the Signatures list, do one of the following:
 - Double-click the undefined signature.
 - Click anywhere.
- 5 On the Edit menu, click **New Signature Spec.**

- 6 To enter file type and creator codes, select one of the following:

Choose Example File	Select a file with the file type and creator codes that you want.
Any file type or Any creator	Specify one for the match signature.

- 7 Close the Signature window.

Work with match folders

In the Folder Specification window you can customize a folder specification for a user-defined match specification.

To specify a match folder

- 1 Start the Speed Disk Profile Editor.
- 2 Open a profile.
- 3 Select a match specification.
- 4 Click the **Folders** list box.
- 5 On the Edit menu, click **New Folder spec**.
A folder can be specified either by its directory ID or by the path to the folder.
- 6 On the Path tab, select a folder that matches the specification that you want, or type the following data:

Base folder	Type the specification that corresponds to a standard folder type or select a folder type from the pop-up menu.
Relative path	Type a directory path that is relative to the standard folder. To specify an absolute path, type the path from the root.

- 7 On the Directory ID tab, type the Directory ID for the folder.
When Include all folders contained within this folder is checked, Speed Disk considers all of the folders within the specified folder part of the match specification.
- 8 Close the window.

Set Speed Disk preferences

You can customize the optimization process. You can specify the degree of file and data verification that you want Speed Disk to use during optimization, and how you want Speed Disk to notify you when it is

finished optimizing. Speed Disk can launch Wipe Info to remove residual data from free space.

To set Speed Disk preferences

- 1 Start Speed Disk.
- 2 On the Options menu, check the options that you want Speed Disk to perform during optimization.
Your choices are:

Verify Media	Checks the readability of the sectors on your disk. Identifies bad blocks to prevent files from accidentally being written to these areas. This option increases optimization time.
Verify Directories	Uses Norton Disk Doctor to check directory structures and verify that the directories and files match. If you run Norton Disk Doctor before Speed Disk, uncheck this option. Otherwise, leave it checked.
Verify Data	Confirms that data is accurately written to the disk during optimization. This option increases optimization time.
Wipe Free Space	Removes any residual data left in unused disk space after Speed Disk finishes optimizing your disk. This function is the same as selecting Wipe Unused Space in Wipe Info. See “To wipe unused disk space” on page 240.
Optimize Directories	Improves the performance of your disk by reducing and consolidating the notes that are used to hold file records in the disk’s directories, and optimizes the records within those notes.
When Finished	Indicates the actions that Speed Disk performs when it is finished optimizing.

- 3 Repeat the process to choose another option.
Your selections take effect immediately.

Test performance in Mac OS 8.1–9.x

Use System Info tests to measure your computer’s performance and to compare it to other Macintosh computers.

System Info runs four separate test suites: CPU (Central Processing Unit), Video, Disk, and FPU (Floating Point Unit). The results from these test suites are combined to generate a single System Rating.

When to run System Info tests

See “Display disk activity in Mac OS 8.1–9.x” on page 235.

If your computer is slowing or overall performance is degrading, but you cannot isolate a problem, run System Info and compare the results with the benchmarks provided in System Info. If you have used System Info previously, you can compare your current computer performance to previously measured performance, to see if anything has changed.

When System Info tests a computer, it can report results in two levels of detail. The basic level provides graphical comparisons for the overall computer rating and each of the four test suites. The advanced level lets you view graphical comparisons of each component test, as well as the numbers behind the graphs.



You might notice that other testing programs generate different component results. Because System Info emphasizes real-world, time-based ratings in its benchmarks, it more accurately measures how well your computer performs.

How to use ratings information

For most users, the CPU ratings are the most important. The System Rating gives you a general idea of overall performance. In some work situations this rating is less important than the individual suite ratings. For example, Disk ratings are usually more important than Video ratings if you are using large databases. Video ratings are generally more important than FPU ratings for graphic artists or multimedia users.

Refer to the system configuration report, which lists hardware components, configuration options, disk information, and installed system extensions, to get an overview of your computer setup.

When you are comparing System Info results for your computer to a benchmark for the same model, any differences in performance might be due to differences in configuration and do not necessarily indicate a problem with your computer. More useful results can be obtained by comparing your computer with itself under varying configurations.

Run System Info

System Info runs in Mac OS 8.1-9.x, or when you restart from the Norton SystemWorks for Macintosh CD.

To run System Info

- 1 Start Norton SystemWorks.
- 2 On the Utilities menu, click **System Info**.
Some systems can be tested in different configurations. For example, you might have more than one disk, or you might have a color and a monochrome monitor connected.
- 3 On the Benchmarks menu, select one of the following:
 - Show More Choices: Configure tests yourself.
The available options display pop-up lists of more choices. Some computers have only one option for some (or all) of the suites. Your computer must support an option before it appears. For example, the multiple disk option is only available if more than one disk is available.
 - Show Fewer Choices: Return to the basic testing level.
- 4 Select the test suites.
- 5 If you selected Show More Choices, select the configuration that you want to test.
- 6 Click **Run**.
Do not move the mouse or type on the keyboard while running benchmarks, as this can affect test results.

Work with test results

When System Info completes the tests, the System Ratings window displays a comparison of your computer's performance to that of other popular models.

You can test your computer's performance with and without Extensions and Control Panels loaded. Some Extensions, particularly on Power Macintosh computers, can slow video performance substantially.

To prevent Extensions and Control Panels from loading

- ❖ Press **Shift** while restarting your computer.

You can perform the following actions with the test results.

Action	Procedure
View an overall suite rating.	In the Show list, select CPU, Video, Disk, or FPU.
Change the order of the list.	<div>Do one of the following:</div> <div><div>■ Click the title of a results column such as System Name or System Rating. For System Name, the order is alphabetical. For a ratings column, the order is descending performance.</div><div>■ On the View menu, select a sort column.</div><div>■ To sort in reverse order, press Option while clicking a sort column.</div></div>
Save test results for future review.	On the File menu, click Save Current System As .
Review existing results without running tests.	On the Benchmarks menu, click Show System Ratings .
Run a specific test.	On the Benchmarks menu, select a test suite, then select a specific test.
View specific test results.	In the Show list, select a suite, then click Rating to choose a specific test.

View a computer's configuration

In the System Ratings window, you can view a detailed report of the current computer or another computer. Items in this report include the test parameters, a computer overview, the video type, volume information, and installed system extensions.

To view a computer's configuration

- 1 In the System Ratings window, do one of the following:
 - Double-click a computer name.
A description of the computer appears.
 - To see the standard test parameters, click **Reference System > Get Info**.
- 2 In the comments text box, type a comment.
If you are viewing a benchmark computer, you cannot type comments. However, if you are viewing the current computer, you can type comments in this report. For example, you might want to record the presence of a third-party device in your current computer. Once you save the current results, you cannot change the comments.
- 3 On the File menu, click **Save Current System As**.

Select computers for comparison

To make valid comparisons of your computer to other computers, ensure that the test parameters are the same for all computers.

Test results for each computer are stored in a folder named Benchmark Results. By default, all computer results that are stored in this folder appear in the System Ratings window. You might want to restrict the displayed list to particular computers. However, you cannot remove the Current System or the reference system.

To remove computers from the results list

- 1 In the System Ratings window, select the computer to remove.
- 2 On the Edit menu, click **Remove System From List**.
The selected ratings are moved to the Hidden Results folder, which is inside the Benchmark Results folder. It no longer appears in the System Ratings window.

To add existing ratings to the results list

- 1 In the System Ratings window, on the Edit menu, click **Add Systems to List**.
- 2 In the dialog box that appears, select a computer and click **Show**.
- 3 Repeat for all of the computer ratings that you want to add.
- 4 Click **Done**.
The System Results window includes the additional computers.

Examine data in more detail

You can examine the test result values that are used to generate the graphs. The Detailed Ratings window displays individual test results in a tabular form for easy comparison of tests within a suite. By default, the Detailed Ratings window displays all results that are relative to the reference computer. You can change the relative computer or view absolute results.

By default, all computers are compared to a Power Macintosh 6100/60. When the weights for each test are computed, in actual results per second, the overall System Rating for the reference computer is set to equal 100. When the Ratings setting is set to Relative, select any computer to make it the reference computer, with all of its test results set to 1.0 in the Detailed Ratings window. All other computers in the list are recalculated relative to the selected computer.

To view detailed results

- 1
- In the System Ratings window, select the computers for which you want to view data.
- 2
- Click **Show Details**.

The reference computer and other selected computers appear in the Detailed Ratings window.
- 3
- In the Show list, select one of the following:

A test suite

System Rating
- 4
- If you select System Rating, in the Ratings list, select one of the following ratings:

Absolute	Displays actual results.
Relative	Compares test results against the computer that you select. Test results are set to 1.0 for all tests for that computer, and the unweighted values behind the graphs appear.

You can add and remove computers from the Detailed Ratings list in the Benchmark Results window.

To sort the Detailed Ratings window

- ❖
- Do one of the following:

Click any column title.

On the View menu, select a sort column.

About System Info tests

Most benchmarks were chosen to measure specific types of Macintosh performance. A few benchmarks implement a real-world programming problem to exercise processor features in a way that is similar to a real application.

Variations in test results of up to 1 percent are normal. For disk tests, variations of up to 7 percent are normal due to disk drive operation.

About CPU benchmark tests

CPU benchmark tests measure the performance of the microprocessor, or Central Processing Unit (CPU). Because the CPU is responsible for most computing tasks, you might find that it is the most indicative of your computer's performance. For meaningful results, factors such as the system bus, memory speed, and caching (if any) are incorporated into the tests.

Some CPU tests measure more than the CPU itself. For example, some tests access memory (RAM), which tests not only the CPU, but the system bus, memory speed, and caching (if any). These factors can influence test results substantially. For the purposes of benchmarking, these factors are considered to be part of the CPU.

See ["View a computer's configuration"](#) on page 226.

System Info tests do not detect cache cards or L2 cache cards, which can substantially improve performance. If you run tests with a cache card installed on your computer, note its presence in the Comments area of the Info For Current System window to make it clear that the test results were run with a cache card installed. Also note the presence of third-party accelerators.

CPU benchmark settings

CPU benchmarks include the following settings.

Setting	Description
BlockMove Aligned and BlockMove Misaligned	Measure the rate at which the Macintosh can move memory using the ROM trap BlockMove. On all Macintosh computers, BlockMove is highly optimized and is a good measure of memory bandwidth (how much data can be moved per unit of time). An aligned and misaligned case are used because on some Macintosh computers, performance is degraded when data is not aligned properly.
Memory Read And Write	Accesses memory in the same way that a program would and does not use any special machine instructions. This is also a memory bandwidth test.
Function Call	Measures the overhead that is associated with making a series of function calls with arguments. Most programs make large numbers of function calls.
Bit Shifts	Measures how fast bits can be shifted. Many applications use this type of instruction.
Multiply And Divide	Measures the speed of integer multiplication and division. The tests emphasize multiplication. Programs frequently use this type of instruction to access arrays.
Branches	Measures how fast code that contains conditional branches can run. One of the most common types of instructions that computers use, branches can substantially affect the performance of some CPUs. Some Macintosh computers have a special processing unit that is dedicated to processing branch instructions.
Instruction Overlap	Measures the ability of the CPU to execute integer (not floating point) instructions at the same time that it accesses memory. The benchmark is written in such a way that memory access should be able to execute at the same time that all intervening computations are performed.
Sort	A high-level benchmark that sorts a large array of instructions using a quick-sort and insertion-sort hybrid algorithm. This makes heavy demands on memory and looping constructs.

Setting	Description
Tree	A high-level benchmark that builds a large, sorted binary tree by repeated insertion. Good caching and memory bandwidth can speed this test considerably.
Search	A high-level benchmark that performs a sophisticated string-searching algorithm that makes extremely heavy demands on memory in a partially sequential way. This test is designed to access memory in a way that most computers cannot cache effectively without a substantial amount of cache memory.

About Video benchmark tests

The Video benchmark tests measure the speed of frequently used video operations such as scrolling, drawing text, and moving images on the screen. Specifically, they test the speed at which common QuickDraw operations are performed.

You can use the Video benchmark tests to estimate screen drawing at different video settings. For example, if you only use a word processor most of the time, try reducing the bit depth for colors (number of colors and grays) to increase screen drawing speed, and then compare the Video benchmark test ratings. On some computers, reducing the bit depth of the built-in video display can increase overall performance on all types of computations, not just screen drawing.

Monitor resolution also significantly affects these tests. Video is faster with a resolution of 640 x 480 than with a higher resolution such as 1024 x 768.

Video benchmark settings

The Video benchmark settings are designed to measure frequently used video operations. For example, scrolling operations are emphasized in the overall video rating because they are heavily used. Note that as the video bit depth is reduced, video performance increases. If you compare video

performance on two different computers, test at the same video bit depth. The following are the Video benchmark settings.

Setting	Description
Rectangles, Round Rectangles, and Ovals	Cycles through painting, erasing, filling, framing, and inverting the respective shapes with different fill patterns and colors, where appropriate.
Lines	Draws lines of varying slopes and colors. The video circuitry of some Macintosh computers is optimized for drawing lines.
Draw Picture	Draws a bitmapped picture at the same bit depth of the screen. It tests the ability of QuickDraw to decode a PICT format picture and place its bits on the screen.
CopyBits (small, aligned; small, misaligned; large, aligned; large, misaligned)	Measures how fast bits can be moved around on the screen using the CopyBits ROM routine, which is heavily used in screen drawing. The small cases are 32 x 32 pixels (the size of a large icon). The small cases are significantly impacted by the overhead of opening and setting up QuickDraw. The large cases minimize this overhead, and more accurately test the speed at which bits can be moved. Aligned (to a 32-pixel boundary) and misaligned cases test optimal and nonoptimal situations.
DrawText	Measures how fast a sentence can be drawn onscreen. Primary emphasis is placed on drawing plain text, although bold and italic text are tested as well.
Scrolling	Measures how fast bits can be scrolled onscreen. Emphasis is placed on vertical scrolling, but some horizontal scrolling is also performed. Results of this test vary depending on the bit depth of the screen.

About Disk benchmark tests

Disk benchmark tests measure how fast a computer reads or writes data to and from a disk. The Disk benchmark tests assess not only the disk, but also the overhead involved in making System calls to the Macintosh ROM.

Use the Disk benchmark tests to see if you need a faster disk drive. Most Macintosh computers are capable of better disk performance than is obtained from a factory-installed disk drive. System Info test results show computers with fast disks so that you can see the disk performance that is possible on your Macintosh.

The built-in disk cache can affect the results of all disk tests. When comparing different disks, use the same size disk cache (the System Info standard test size is 128 KB). However, for best performance, allot 32 KB of disk cache for each MB of physical RAM up to 64 MB. Setting a disk cache larger than 2 MB usually does not noticeably improve performance. Set the disk cache back to its optimum value after running System Info tests. You can change the disk cache size in your Macintosh computer's Memory Control Panel.

A disk must have at least 2 MB of free space to run any test in the Disk suite (floppy disks require 0.5 MB). Network volumes, RAM disks, optical disks, and even floppy disks can be tested. Any disk that is tested must be writable; CDs or locked disks cannot be tested. The tests are nondestructive and use only the free space on the disk.



If you need to recover erased files, use UnErase before running the System Info Disk benchmark tests. Because the Disk benchmark tests involve writing to the disk, you will not be able to recover erased files with UnErase. For the same reason, do not run tests on damaged disks that might require repairs. Examine disks with Norton Disk Doctor before running Disk benchmark tests.

Disk benchmark settings

By design, the Disk benchmark tests do not isolate disk speed alone. The Disk benchmarks include factors that applications normally experience, such as CPU speed, SCSI bus speed, impact of the disk cache, and fragmentation.

The Disk benchmark settings are as follows.

Setting	Description
Random Read, Random Write	Read or write data to random locations in a test file in three 1 MB bands. The size of read and written data varies from 4 bytes to 4 KB. These tests reflect seek time, the effects of the disk cache, and how fast a disk drive can process numerous small requests to read or write data. They are good indicators of overall performance.
All Read and All Write	Read or write data into a file in three 1 MB bands. The size of read and written data varies from 4 bytes to 4 KB. These tests reflect seek time, the effects of the disk cache, and how fast a disk drive can process numerous small requests to read or write data. They are good indicators of overall performance.
Sequential Read, Sequential Write (1 KB, 4 KB, 16 KB, 64 KB, and 256 KB)	Measure how fast the drive can read and write data when it is requested in a specific size chunk. Some drives can transfer data efficiently only in large chunks. Others are efficient with many small chunks, but slow down with large chunks. These sequential tests bypass the built-in disk cache (to eliminate cache overhead) and provide a good indicator of performance of the disk itself.

About FPU benchmark tests

The FPU benchmark tests measure the performance of floating-point (mathematical) calculations. These types of calculations are used mostly in spreadsheets, scientific applications, and design programs. To assist technical users who are often concerned with only the speed of certain calculations, a wide range of benchmarks is used. Both single-precision and double-precision operations are tested, as the speed difference is significant on some computers. Not all Macintosh computers have hardware FPUs; some perform the calculations through software.

FPU speed has little weight in the overall System Rating because not everyone uses the FPU. If you are concerned with FPU speed, look at the FPU ratings separately.

All FPU benchmark tests are directly comparable among themselves. For example, you can compare the speed of a multiplication test to an addition, square root, or cosine test.

FPU benchmark settings

FPU benchmarks include the following settings.

Setting	Description
Multiply, Divide, Add, And Subtract	Measure basic FPU performance in both single- and double- precision. On some computers, double-precision might be faster than single-precision because single-precision numbers must first be converted to double-precision before the calculation occurs.
Integer To Single And Single To Integer	<p>Convert an integral number to a single-precision floating-point number and vice versa. Some computers have hardware instructions for both operations, some have neither, and some have just one. This accounts for the different results you might encounter, depending on which way the conversion goes.</p> <p>A single-precision floating-point number is 32 bits. Because of differences in the floating-point formats that are supported on various computers, a double-precision number varies in size. For double-precision, the tests use the fastest format available that is at least 64 bits in size.</p>
Sine, Cosine, Tangent, and Arc Tangent	Measure trigonometric performance on double-precision numbers. These results can vary from computer to computer.
Absolute Value, Square Root, And Log 10	Measure the absolute value, square root, and logarithm in base 10, respectively, of a double-precision number.
Vector	Measure how fast an array of numbers (vector) can be manipulated. Each element in the array is multiplied by a constant; a constant is added and the result is stored back into the array ($X' = aX + B$).

Display disk activity in Mac OS 8.1–9.x

Use DiskLight to keep informed of disk read and write activity, even when it appears that no processes are running. Normal disk activity is a good indicator of your computer’s general health.

Although some disk drives have external lights that indicate disk activity, you might not see the light if your computer is under your desk or in another location. You might not want to look away from the screen to view the disk activity. Also, PowerBook and iBook disk drives are quiet and do not have a light.

Use DiskLight to:

- Monitor disk drive and other device activity.
- Verify that applications are working and have not crashed during long periods when they might be working with data on a disk.

Normally, DiskLight flashes when you open a disk, folder, file, or document (when your Macintosh is reading data off the disk). The icon changes to let you know if it is a hard or floppy disk, or a disk read or write operation.

For SCSI devices, DiskLight can display the device ID number to the right of the flashing icon. For other device types such as IDE hard disks, only the disk icon appears.

When you save a document, DiskLight flashes to let you know that the document is being written to the disk. If DiskLight does not flash when you expect it to, run Norton Disk Doctor as there might be a problem with your disk. Disk activity that is not patterned or rhythmic is normal.

Configure DiskLight

Use the DiskLight Control Panel to enable or disable DiskLight. You do not have to restart your computer for your settings to take effect.

To configure DiskLight

- 1 On the Apple menu, click **Control Panels > DiskLight**.
- 2 Click **Left** or **Right** to turn DiskLight on.
- 3 Click **Off** to turn DiskLight off.
- 4 Click **Show SCSI ID** to display the number of the SCSI device that is accessed when the DiskLight icon flashes.
- 5 Click **Show Icon at Startup** to be reminded that DiskLight is loading when your computer starts.

To prevent DiskLight from loading when your computer starts

- ❖ When your computer starts, press **Option**.
If Show Icon at Startup is selected, the DiskLight icon appears with an X over it.

Remove data permanently in Mac OS 8.1-9.x

Most of the tools in Norton SystemWorks protect, rescue, and improve access to your data. Wipe Info destroys data permanently. Use Wipe Info in Mac OS 8.1-9.x when you want to be sure that an erased file or folder cannot be recovered by any means. There is no way to recover files that have been erased with Wipe Info.

Use Wipe Info to delete data on a Mac OS X volume when you have restarted your computer in Mac OS 8.1-9.x or from the Norton SystemWorks for Macintosh CD. You can also use Wipe Info to clean unused disk space, to ensure that no sensitive information that was inside of invisible, temporary, or unwanted files still exists in unallocated fragments.

When you wipe the unused space on a disk to prevent the recovery of erased files, all other files are untouched, including files that are in the Trash. If you want Wipe Info to wipe the disk space where the deleted files were stored, remember to empty the Trash before wiping unused disk space.



Wiping unused disk space prevents UnErase from recovering files that were erased before the disk space was wiped.

If you use Wipe Info frequently, you can create a Wipe Info Trash can on the Desktop so that you can destroy unwanted data without having to start Wipe Info each time.

How Wipe Info works

When you empty the Trash or erase a disk, only the bookkeeping information about the disk is modified. The data in erased files remains on the disk, even though the file names no longer appear in any folder, until the space is needed to store other files. This poses a security risk for sensitive and confidential documents.

Wipe Info eradicates old data by overwriting it with new, meaningless data. Not even a Symantec technician can recover anything from a disk that you have wiped.

If a folder is wiped, all files and folders that are inside of the folder are wiped. When you wipe an entire disk, Wipe Info irretrievably destroys everything on the disk.

Because you cannot recover wiped data, Wipe Info has built-in safeguards to avoid accidental data loss. You are asked to confirm each operation before data is irretrievably destroyed.

Start Wipe Info

Start Wipe Info when you have restarted your computer in Mac OS 8.1-9.x or when you have restarted from the Norton SystemWorks for Macintosh CD.

The Wipe Info main window contains three disk wiping operations: Wipe File/Folder, Wipe Disk, and Wipe Unused. A fourth option, Wipe Entire Device, is available on the Wipe menu.

See “Use drag and drop” on page 58.

There are contextual menus and drag-and-drop shortcuts that you can use with Wipe Info.

To start Wipe Info

- 1 Start Norton SystemWorks.
- 2 On the Utilities menu, click **Wipe Info**.



Wipe items on your disks

See [“Work with the Wipe Info Trash”](#) on page 241.

Wipe Info can eradicate a single file or a folder that is filled with files.

To wipe a file or folder

- 1 In the Wipe Info main window, click **Wipe File/Folder**.
- 2 Select a file or folder to delete.
- 3 Click **Wipe**.
You are asked to confirm the deletion.
- 4 Click **Wipe**.
Wipe Info erases the selected file or folder permanently.

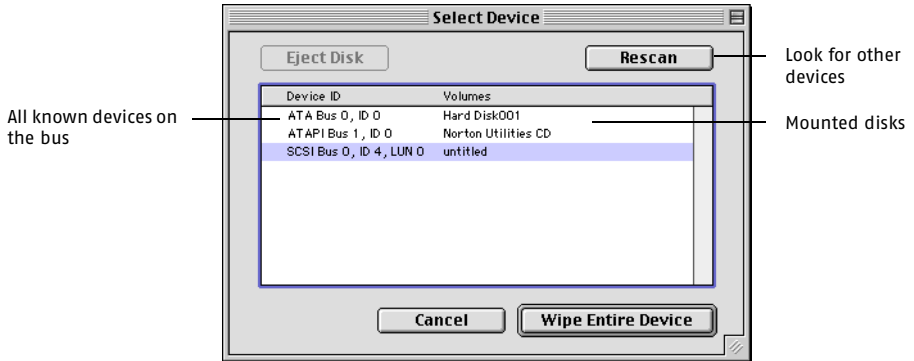
To wipe an entire disk

- 1 In the Wipe Info main window, click **Wipe Disk**.
- 2 In the drive selection dialog box, select a disk drive.
- 3 Click **Wipe Disk**.
- 4 When prompted, type a new name for the disk.
- 5 Click **Wipe**.
Wipe Info erases the entire selected disk permanently.

You can wipe any USB, SCSI, or IDE device, such as a FireWire, Syquest, or Zip drive, internal or external hard disks, and so on. If the device is large, the wiping process might require a significant amount of time to complete.

To wipe a device

- 1 Start Wipe Info.
- 2 On the Wipe menu, click **Wipe Entire Device**.
The Select Device window lists available devices.



- 3 If the device that you want to wipe does not appear, recheck all cables and power to the device, and click **Rescan**.
- 4 Select a device in the list.
- 5 Click **Wipe Entire Device**.
- 6 When prompted, click **Wipe**.
Wipe Info erases the selected device.



After erasing the device, you will need to reformat it with a compatible formatting software program such as the Apple Drive Setup, FWB Hard Disk Toolkit or a similar disk tool that is designed to work with the device make and model.

To wipe unused disk space

- 1 In the Wipe Info main window, click **Wipe Unused Space**.
- 2 Select the device whose unused space you want to delete.
- 3 In the Selection dialog box, click **Wipe Unused Space**.
- 4 When prompted, click **Wipe**.

Increase Wipe Info security

To meet high security requirements, Wipe Info includes a Security Wipe option. Using this option, Wipe Info first writes the pattern that is specified in the Configure Security Wipe window, and then writes a complement of these characters. Finally, Wipe Info writes zeroes over the file space. The Security Wipe process uses Department of Defense (DOD)-approved methods.

To start or stop Security Wipe

- ❖ In Wipe Info, on the Options menu, do one of the following:
 - Check **Security Wipe** to start it.
 - Uncheck **Security Wipe** to stop it.If checked, all future wipe operations use the Security Wipe option until you uncheck it.

To configure Security Wipe

- 1 In Wipe Info, on the Options menu, click **Security Wipe Options**.
- 2 Select one of the following wipe options:
 - Text: Security Wipe uses patterns of text characters to wipe the disk.
 - Hexadecimal: Security Wipe uses patterns of hexadecimal characters to wipe the disk.

Work with the Wipe Info Trash

You can create a Wipe Info Trash can on the Desktop to work in conjunction with the regular Trash.

To create a Wipe Info Trash can

- ❖ In Wipe Info, on the Options menu, click **Create Wipe Info Trash**. The Wipe Info Trash icon appears on the Desktop.



Drag files or folders here for secure, immediate deletion

The Wipe Info Trash lets you destroy unwanted data without having to start Wipe Info each time.

The Wipe Info Trash behaves differently than the usual Trash. If you drag an alias to the Wipe Info Trash, you destroy the file that the alias

represents, not the alias. If you want to discard an alias but keep its file or folder, do not use the Wipe Info Trash.

To use the Wipe Info Trash

- ❖ Do one of the following:
 - Wipe a file or folder immediately: Drag a file or folder or its alias to the **Wipe Info Trash**.
 - Wipe the free space on a disk: Drag the disk icon to the **Wipe Info Trash**.

To delete an alias

- 1 In the Wipe Info main window, click **Wipe File/Folder**.
- 2 Select the alias file to be wiped.

Alternatively, you can create an empty folder and place the alias to be wiped into that folder. Using the Wipe Info Trash, you can safely wipe the folder that contains the alias, and the original is unaffected.

To remove the Wipe Info Trash

- ❖ In Wipe Info, on the Options menu, click **Remove Wipe Info Trash**.

If Norton Disk Doctor and UnErase cannot solve your problems

If Norton Disk Doctor, Volume Recover, or UnErase cannot solve your problems, try the following suggestions.

For more information	Suggestion
See "Check all cables" on page 244.	Check all cables for loose connections.
See "Zap the PRAM (reset Parameter RAM)" on page 251.	Reset the PRAM by restarting and pressing Command-Option-P-R .
See "Have you added anything new lately?" on page 245.	Disconnect all external devices.
See "Replace a damaged disk driver" on page 250.	Update your device drivers with the latest formatting software. See the device manufacturer's documentation.

For more information	Suggestion
See "If you don't see the disk that you're looking for" on page 169.	Your device might need an installed extension, or Norton Disk Doctor, UnErase, or Volume Recover might not recognize the device.
See "Start from the CD" on page 33.	<p>Some peripheral devices such as USB and FireWire require specific system extensions. If you are missing the extension, a device might not function as expected. If you are trying to examine such a device while your computer is started from the Norton SystemWorks for Macintosh CD, you might not be able to mount the device. Try creating a startup disk that includes the extension.</p> <p>See the documentation that came with the device.</p>

Prepare your computer

Often, problems are easier to find and fix if you can first isolate the problem. Disconnect all external devices other than the one that you are examining. This saves time and prevents accidents from happening to trouble-free equipment.

For example, if you are using more than one hard disk and only one hard disk has a problem (which is usually the case), reconfigure your computer's peripheral devices so that only the problem disk and your Macintosh are set up for the troubleshooting session.



When you are troubleshooting, use an Apple keyboard and standard Apple mouse. Third-party input devices sometimes use custom drivers that are unavailable on the Norton SystemWorks for Macintosh CD.

Check all cables

Your Macintosh or the hard disk might not be getting power, or they may not be communicating with each other properly due to a faulty cable connection.

Do the following to check your cables:

- Start with the computer turned off. While it is turned off, check all of its power cords, peripheral cables, and connections.
- Make sure that your Macintosh and its peripherals are plugged into a grounded electrical outlet, and that they are connected to each other. If the computer is too close to a wall, the cable connectors might be loose or the cables might be crimped and the connection not properly made.
- If you are using a device that has a cable with the same type of connectors on each end, it might make a difference which end is connected to your Macintosh.
- Do not substitute cables for different types of devices even if they look exactly alike. The wiring inside of the cable might be different.
- If the computer doesn't start, check the power strip or wall outlet with an item that is known to work.
- When you are certain that power is available to all devices and that all connections are snug, turn the computer on. If your computer does not start, you might have a hardware problem. See [“Is it a hardware problem?”](#) on page 245.

Have you added anything new lately?

The two top reasons for startup disk problems are adding a new external device and installing software that modifies your Mac OS System software.

If your problem occurred right after you added a hard disk or other peripheral device, check for device conflicts.

If your problem occurred after you added new software, refer to the software's documentation to see if any system extensions or Control Panels were installed. These types of programs sometimes cause conflicts with your System files, other extensions, or with a specific application. If so, check for extension conflicts by removing the new software's system extension or Control Panel, and then restarting to see if the problem still exists.

Is it a hardware problem?

If you are having a hard disk problem that Norton Disk Doctor can't fix, you might have a hardware problem. It is unusual for a Macintosh to experience hardware failure. In the unlikely event that it happens, utility software can't fix it, and you need to see a qualified technician.

Most internal or external hard disks display the following symptoms.

Type of drive	Symptom
Internal and external drives	<p>The access or busy LED might suddenly stop working or flash repeatedly. The sound that the hard disk makes when it spins up and recalibrates might have changed or gone away.</p> <p>Sometimes drives experience a problem known as <i>stiction</i>. This is when the read/write assembly gets stuck to the point that the platter no longer spins. If the drive is external, sometimes a gentle thump can free it long enough for you to perform a backup. This procedure is not recommended nor is it a long-term solution. When you turn off the drive and turn it on again, the problem will probably return.</p>
External drives	<p>The power LED or the hard disk indicator light doesn't light up. This can happen when the hard drive's power supply fails. Your data might be intact on the disk. Have a technician investigate.</p>
Floppy disk drives and other removable media devices	<p>Macintosh floppy disk drive heads can become dirty to the point that they no longer recognize an inserted floppy disk. Drive cleaning kits are not a complete solution to this problem. If you experience this problem, ask your technician if your drive can be cleaned. If a floppy disk gets stuck in a drive, take great care in removing it. The read/write head assembly is delicate and most damage that occurs here is not covered by the Apple warranty.</p> <p>Other removable media drives might require special cleaning procedures. Refer to your manufacturer's instructions.</p>
Macintosh main logic board	<p>Problems that display certain sad Macintosh codes (those containing an "F" within the first eight characters) can be fixed using Norton SystemWorks disk tools or the formatting software for your hard disk. Those that cannot be fixed usually indicate that a problem exists with ROM or RAM, or elsewhere on the main logic board.</p>

USB issues

To check for the most up-to-date solutions, visit the Symantec Support Services Web site at www.symantec.com/techsupp/

Using USB devices as startup disks

Some USB devices cannot be used as startup disks on some Macintosh computers. If this is the case for your computer, install Norton SystemWorks onto the USB volume. Place the Norton Shared Lib file in the same folder as the Norton SystemWorks tools. Start your computer with the USB media inserted and the Macintosh OS CD as the startup disk. Insert the USB media prior to restarting from the Macintosh OS CD so that the operating system can add the USB volume to the Desktop.

Problems starting from the USB port

Some newer Macintosh computers, such as the iMac DV (slot-loading model) and the Macintosh G4 with a USB port, might not be able to start with the Mac OS 9.x System software on recent Norton SystemWorks for Macintosh CDs.

During startup, the computer might stop responding or it might crash with a Bus error. This usually occurs if you have a USB hub or a single extra USB device such as a modem or scanner connected along with your keyboard and mouse.

If this occurs, disconnect the extra third-party USB device from the computer and try starting from the Norton SystemWorks for Macintosh CD again.

FireWire device problems

When you start from the Norton SystemWorks for Macintosh CD, your FireWire drive is not recognized, and you are prompted to initialize or eject it. Because of this, you are unable to examine any LaCie USB drives or FireWire drives while your computer is started from the Norton SystemWorks for Macintosh CD.

Start from the internal hard disk and examine the external devices with Norton Disk Doctor.

SCSI device conflicts

Macintosh computers locate and communicate with SCSI devices such as hard disks, scanners, and CD-ROM players, by using a SCSI ID number. The SCSI devices are connected to each other, creating a chain through which the computer can communicate with any device. Each device must have a unique ID from 0 (the last device in the chain) to 6 (the first device

in the chain). Most Macintoshes now use IDE drives, but on older Macs with built-in SCSI devices, the computer is always device number 7, the internal hard disk is usually 0, and a factory-installed CD-ROM drive is usually 3. Most external hard disks and other SCSI devices have a switch on the back with which you set the ID number.

Depending on the type of SCSI card that you have installed in your computer, you can have between 6 and 16 SCSI devices on a single SCSI bus.

To resolve SCSI device ID conflicts

- 1** Check each SCSI device to make certain that it has a unique ID number from 0 to 6.
- 2** If two numbers are the same, reset one device to an unused number and restart your computer.
If you have multiple SCSI buses, make sure that no two devices on the same bus have the same ID.

SCSI termination problems

A *terminator* is a small piece of hardware that fits over the SCSI port, connects to a cable, or is part of the electronics of your SCSI device. If the SCSI chain is terminated improperly, it can cause your computer to stop responding and cause startup problems.

If you have more than one SCSI device, the chain must be terminated twice, at the beginning and at the end of the chain. There can be no more than two terminators in a SCSI chain.

If you have an internal SCSI hard disk, it is probably terminated automatically. The user guide that came with the hard disk should contain information on how to change the hard disk SCSI ID and how to enable or disable termination.

To resolve a SCSI termination problem

- ❖ Check to see that the first and last device in the SCSI chain are terminated and that the others are not.

Extension conflicts

An *extension* is computer code that, on startup, alters the way that your System software works. (Some Control Panels also work in the same way.) These programs are stored in the Extensions folder or the Control Panels folder, which are located in the System Folder.

An extension can cause a conflict with your system files, other extensions, or with a specific application. For example, you might observe that certain functions such as connecting to the Internet or launching some programs are temporarily disabled.

To temporarily resolve an extension conflict

- ❖ Press **Shift** while you start your Macintosh.
This disables all extensions until you restart your Macintosh.

To eliminate the conflict

- 1 On the Apple menu, click **Control Panels > Extensions Manager**.
- 2 In the Extensions Manager window, save your current configuration by clicking **Duplicate Set**.
- 3 If you see a message that the selected set doesn't match the contents of your System Folder, click **Create New Set**, and give the set a descriptive name.
- 4 In the Extensions Manager window, select a set with the minimum number of extensions to load. This is sometimes called the Base Set.
- 5 Restart the computer with the selected minimum set of extensions. If your computer behaves normally, you've identified the problem as an extension conflict.
- 6 Open Extensions Manager and start adding extensions back to the selected minimum set.
You must restart each time for the changes to take effect.
For more information on system alterations, see your Macintosh computer documentation.

Remove older FileSaver files

If you installed Norton SystemWorks for Macintosh over an older version, you might have to remove an old version of FileSaver Assistant and its related files.

To remove older FileSaver files

See "To temporarily resolve an extension conflict" on page 249.

- 1 Restart the Macintosh with Extensions Off.
- 2 On the Apple menu, click **Fast Find**.
- 3 In the Fast Find window, make sure your local disks are selected.
- 4 In the Look For text box, type **Norton FS**.
- 5 Click the running man icon.
- 6 To select all of the found files, press **Command-A**.

- 7 With the found files selected, on the File menu, click **Move > To Trash**.

These files are invisible, so they do not appear in the Trash.

To empty the Trash that contains these invisible files, create an empty folder on the Desktop and move it to the Trash, and then empty the Trash.

- 8 Restart your computer.

Replace a damaged disk driver



Replacing a disk driver can be dangerous because you need to use disk formatting software. If it is used incorrectly, this software could reformat your hard disk. The procedure described is an outline of the most typical steps for replacing a driver. The exact procedure varies with each disk drive manufacturer. For detailed instructions on how to update your device driver, see the user's guide that came with your hard disk.

To replace a driver

- 1 Start your Macintosh using the disk that contains the setup utility that was used to format your hard disk.
For most users, this is on the Mac OS System CD that came with your computer.
- 2 If the Sad Mac still appears when you restart, press **Command, Option, Shift, and Delete** while restarting.
- 3 In the hard disk utility application, select your volume or disk, and look for a button or menu item named Update or Reinstall Driver.
- 4 In Drive Setup, on the Functions menu, click **Update Driver**.
If an update or replace driver feature exists in the utility, select it only after you are certain of the following:
 - The correct volume has been chosen for the driver update.
 - Updating the driver will not cause the volume to be reformatted or initialized. If the utility warns you that data will be lost, do not proceed.
If you can't locate the device with the utility software, chances are that there is a hardware problem.
- 5 If you have successfully completed updating the driver, restart your Macintosh.
- 6 To ensure that no other problems exist, run Norton Disk Doctor.

Zap the PRAM (reset Parameter RAM)

The PRAM (Parameter RAM) is an area of RAM that is used to store information about your Macintosh. Your Macintosh computer needs part of the information that is stored in the PRAM in order to locate the current startup device.

Because this information is needed each time that you use your Macintosh, it is stored even when your Macintosh is turned off (a battery supplies power to this memory when you shut down your Macintosh). If the information in the PRAM becomes corrupted, you can clear the information and replace it with new information.



If your computer consistently does not retain the current date and time when you turn the computer off, your PRAM battery might need to be replaced.

Some System settings such as disk cache, mouse speed, menu blinking, time zone, and others must be reconfigured after you reset the PRAM.

To reset PRAM

- 1 Restart your computer while pressing **Command, Option, P, and R**. As the computer begins to restart, you will hear the startup chime repeat. Continue pressing the keys until the chime has sounded three or more times.
- 2 Release the keys and the startup should complete.

Replace damaged System files

When you replace System files, any special sounds that you might have installed in the System file are replaced.

To replace System files

- ❖ Using your Mac OS System CD, perform a clean System install. Consult your Macintosh User's Guide and follow the procedures for performing a clean System install.

Recover files before sending a disk to a technician

See ["Recovering missing or erased files"](#) on page 181.

If you are still unable to start your Macintosh using your startup disk, you might have a hardware problem that only a qualified service technician can fix. It might still be possible to recover files from the volume even though you can't start from it. Before you send the disk to a technician, try using UnErase to recover data.

Reformat your hard disk

A hard disk can accumulate bad or weak sectors, known collectively as *bad blocks*. When this happens, some sectors can no longer be accessed unless the hard disk is physically reformatted or low-level formatted.


Reformat your hard disk only if you have exhausted all repair options, including a professional data recovery service. Because reformatting the hard disk destroys all existing information that is contained on the disk, recover as much information as possible from your damaged volume before you begin reformatting. If you have a recent backup, recover only the new files and files that have changed since the last backup.

Almost all hard disk formatting applications deal with bad blocks differently. Some remap the blocks using spare or unused sectors during the format process while others require that a specific procedure be run before or after formatting. For instructions on reformatting your hard disk, see the documentation that came with the formatting software.



Do not format your hard disk unless you have a backup of the damaged hard disk or have successfully recovered all of the files using UnErase. See [“Recovering missing or erased files”](#) on page 181.

More information is available in the Support section of the Symantec Web site. See [“Service and support solutions”](#) on page 291.

A thick yellow vertical bar runs along the right edge of the page, starting from the top and extending almost to the bottom.

4

Norton SystemWorks
featured products

Norton SystemWorks featured products

13

The Norton SystemWorks for Macintosh CD includes the following products from other manufacturers:

- Dantz Retrospect Express: Lets you create backups of your disks and files quickly and easily. Retrospect Express works with a wide range of removable media, including Zip disks, Jaz drives, and CD-R/RWs.
- Alsoft DiskWarrior Recovery Edition: Provides the ability to rebuild, recover, and optimize disk directories.
- Aladdin Spring Cleaning: Mac OS 8.1-9.x and Mac OS X versions of a utility that removes unwanted files from your hard drive.

The CD also includes demo and freeware products from other manufacturers.

- Demos: Contains a demonstration version of Aladdin DragStrip for Mac OS 8.1-9.x, which lets you customize shortcuts on the Desktop.
- Freeware: Contains Aladdin StuffIt Lite for Mac OS 8.1-9.x and Mac OS X, which compresses and decompresses files.

More information is available in the Demos and Freeware folders on the Norton SystemWorks for Macintosh CD.

Retrospect Express quick start

The Norton SystemWorks for Macintosh CD includes the *Retrospect Express User's Guide* and *Retrospect Express Quick Start* PDFs in the Retrospect Express 5.0 folder. These PDFs were written for Retrospect Express version 4.3, and do not fully document the features of Retrospect Express 5.0 for Mac OS X.

See "Access the Retrospect Express PDFs and Read Me" on page 258.

The Retrospect Express Read Me file includes information that was not available when the *Retrospect Express User's Guide* PDF was finalized. It includes late-breaking information, issues with specific types of hardware and backup media, and platform-specific advice.



The Dantz Web site is constantly updated with the most recent support information for Retrospect Express. Point your browser to the following Web page:

<http://www.dantz.com>

What's new in Retrospect Express

This version of Retrospect Express has the following features:

- Support for Mac OS 9 and Mac OS X
- Support for UNIX ownership and permissions
- Ability to restore volumes in Mac OS X
- Backup capability for files that are larger than 2 GB
- Support for file backup sets that exceed 70,000 files
- Support for large file backup sets that are not constrained by Mac OS resource fork size limitations
- Support for automated scripts that can launch Retrospect Express with no dependency on a user logon ID
- Support for DVD-R, DVD-RW, and Apple SuperDrive as backup media devices

Retrospect Express system requirements

Retrospect Express requires the following backup computer hardware and software:

- PowerPC-based Macintosh computer (G3 or later in Mac OS X)
- Mac OS 9.0 or later, or Mac OS X version 10.1.2 or later
- For Mac OS 9: Minimum 64 MB of RAM (128 MB recommended)
- For Mac OS X: Minimum 128 MB of RAM (256 MB recommended)
- Hard disk drive with a minimum of 50 MB free space

Install Retrospect Express

See ["To check your logon type"](#) on page 44.

In Mac OS X, the Retrospect Express installer requires an administrator logon and password for authentication.

To install Retrospect Express

- 1 Insert the Norton SystemWorks for Macintosh CD into your CD-ROM drive.
- 2 Open the **Retrospect Express 5.0** folder.
- 3 Double-click **Install Retrospect Express**.
- 4 In the Authenticate dialog box, type an administrator password.
- 5 Click **Continue**.
- 6 In the Licence Agreement window, click **Agree**.
If you click Disagree, the installer quits.
- 7 Click **Install**.
You can change from Easy Install to Custom Install to select the Retrospect Express documentation as well as the application.
- 8 Follow the on-screen instructions to complete the installation.

The program files are installed in the Applications folder, in a folder named Retrospect Express 5.0.

Remove Retrospect Express

If you need to remove Retrospect Express from your computer, delete files from their installed locations.

To remove Retrospect Express

- ❖ Drag the following items to the Trash:
 - /Applications/Retrospect Express 5.0/ (Mac OS 9 and X)
 - /Library/Preferences/Retrospect/ (Mac OS X)
 - /Library/StartupItems/RetroRunHelper/ (Mac OS X)
 - /System/Preferences/Retrospect/ (Mac OS 9)

In Mac OS X, you must restart your computer before you can empty the Trash.

Start Retrospect Express

See [“To check your logon type”](#) on page 44.

The first time that you open Retrospect Express in Mac OS X, you need to enter an administrator logon ID and password.

To start Retrospect Express in Mac OS X

- 1 In the Applications folder, double-click the **Retrospect Express 5.0** folder.
- 2 Double-click **Retrospect**.
- 3 In the Retrospect Backup registration dialog box, select one of the following:
 - Already Registered
 - Register Later
 - Register Now
- 4 At the prompt, type an administrator password.
- 5 To avoid this prompt, uncheck **Always require authentication**.
You can also specify your security logon preference in the Retrospect Express Preferences.

See the Retrospect Express User's Guide on the CD.

Access the Retrospect Express PDFs and Read Me

The *Retrospect Express User's Guide* contains detailed information on how to use Retrospect Express version 4.3. The Retrospect Express Read Me file contains late-breaking information that was not available when the *Retrospect Express User's Guide* PDF was produced. Check the Dantz Web site for updates to this documentation.

See [“To install Adobe Acrobat Reader”](#) on page 75.

If you don't have Adobe Acrobat Reader installed, you can install it from the Norton SystemWorks for Macintosh CD.

To open the Retrospect Express PDFs

- 1 Insert the Norton SystemWorks for Macintosh CD into the CD-ROM drive.
- 2 Double-click the **Install Retrospect Express** folder.
- 3 Double-click one of the following:
 - Retrospect Express Quick Start: This PDF includes instructions for installing and using Retrospect Express in Windows and Macintosh operating systems.
 - Retrospect Express User's Guide: This PDF includes detailed instructions for using Retrospect Express.
 - Retrospect Express Read Me: This opens the Retrospect Express.html file.

About backup devices

See "[Contacting Dantz Development Corporation](#)" on page 298.

The Dantz Web site has a list of backup devices that are supported by Retrospect Express. If your drive is not listed, it might not be supported. If you have questions about support for your drive, contact Dantz Technical Support.

Determine your drive's firmware

Certain drives require specific versions of *firmware*, the drive's built-in controlling software.

To determine your drive's firmware version

- 1 On the Retrospect Express Configure tab, click **Devices**.
- 2 Click **Device Status**.
If your firmware is an earlier version than is required, contact your drive vendor.

Optical or cartridge drive issues

Retrospect Express supports all drives that appear as volumes on the Desktop. This includes removable cartridge drives from Iomega, Imation's SuperDisk, DVD-ROM drives from Hitachi, Panasonic, and Toshiba, and magneto-optical drives from Epson, Fujitsu, Mitsubishi Chemical, Olympus, Philips, Pinnacle, Ricoh, Sony, and others.

The Retrospect Express storage devices window shows removable disk drives with mounted media. When it shows a local hard disk, the formatter that was used to format the hard disk informed the Mac OS that the fixed

hard disk is removable or ejectable. Contact the formatter's vendor to find out how to configure your hard disk so that it does not appear ejectable to the Mac OS.



If your formatting software makes a hard disk appear ejectable and you are backing up to removable disks, be careful not to accidentally select the hard disk as a backup destination.

FireWire/IDE/USB removable drive issues

For best results with a non-SCSI removable cartridge drive such as FireWire, IDE, or USB, before using it with Retrospect Express, use the drive's latest software to format the cartridge. This ensures that your Macintosh can mount cartridges from the drive after a disaster when your normal startup drive is down and you have to start your Macintosh from the Norton SystemWorks for Macintosh CD to recover.

Unsupported devices

The following drives may include Retrospect Express software at the time of purchase, but they do not operate under Mac OS X and cannot be used with Retrospect Express 5.0:

- Seagate USB Travan TR4
- Seagate USB Travan TR5
- OnStream USB-30

Alsoft DiskWarrior Recovery Edition quick start

Alsoft DiskWarrior Recovery Edition is a recovery tool that lets you copy inaccessible files from a disk with a damaged directory to another disk. After you complete the recovery process, the original disk is still in its original damaged state.

See "Examining, repairing, and recovering disks" on page 153.

To recover your files without having to copy them to another disk, try using Norton SystemWorks recovery tools such as the UnErase, Rebuild Directories, or Volume Recover features.

Use DiskWarrior Recovery Edition

You must use DiskWarrior Recovery Edition when you have restarted from the Norton SystemWorks for Macintosh CD.

To start DiskWarrior Recovery Edition

See [“Start from the CD”](#) on page 33.

- 1 On the Norton SystemWorks for Macintosh CD, open the **DiskWarrior** folder.
- 2 Double-click **DiskWarrior Recovery Edition**.
- 3 In the License Agreement window, click **Agree**.

Recover HFS and HFS Extended disks


When Alsoft DiskWarrior Recovery Edition recovers your disk, your directories and data are not modified in any way. During the recovery process, Alsoft DiskWarrior Recovery Edition analyzes the damaged disk, builds a new directory, and displays a report. The analysis can take several minutes, depending on the number of files on the disk. For more information on the report, see [“About the DiskWarrior Recovery Edition report”](#) on page 263.

During the recovery process you might need several disks on which to copy the original files. The number of disks that you will need depends on the number and sizes of the files on the damaged disk.

Copy only the files that you absolutely need, such as those that have changed since your last backup, or only data files if you are planning to reinstall your system and applications.

To recover disks

- 1 Start Alsoft DiskWarrior Recovery Edition.
- 2 Select the disk that you want to recover.
The lower part of the window displays an estimate of the disk’s potential for recovery, or any reasons that the disk can’t be recovered.
- 3 Click **Recover**.
The Alsoft DiskWarrior Recovery Edition report displays the recovery results, and an image of your recovered disk appears on the Desktop.
- 4 Recover files using the Finder.
You must copy files from the recovered disk to another disk manually. See [“Work with a recovered disk”](#) on page 262.

- 5
- If the Finder displays an error message that it cannot copy all of the files that you select, click **Continue** to continue copying the remainder of the files you selected.
When the copy operation is complete, try to copy the skipped files again in case the error is intermittent and the copy operation can be performed for those files.
- 
- Do not remove your disk from the Desktop at this stage in the process while Alsoft DiskWarrior Recovery Edition is running.
- 6
- Click **Done**.
Alsoft DiskWarrior Recovery Edition removes your recovered disk from the Desktop. Your original damaged disk is untouched. If the disk was on the Desktop before you ran Alsoft DiskWarrior Recovery Edition, it reappears on the Desktop in its original state.

Work with a recovered disk

DiskWarrior Recovery Edition mounts the image of your recovered disk on the Desktop. You can complete the recovery by copying files from this newly accessible disk to a safe location. This step provides a backup in case further attempts to repair the disk are unsuccessful.

Special folders

DiskWarrior Recovery Edition may create folders at the root level of the disk. Pay attention to the files and folders that Alsoft DiskWarrior Recovery Edition places in these folders.

Folder	Description
Rescued Items	Contains files and folders whose enclosing folder could not be found. If any of these files or folders are part of a software package, you may need to create enclosing folders with the correct names and locations after you have repaired your disk so that the software that uses these files works correctly, or you may need to reinstall the software package.
Damaged Items	If present, this folder contains files that were recovered but may have problems. For example, these files may have been truncated because blocks were missing from the file, or the existing directory information may have indicated that two files occupied the same block. The Alsoft DiskWarrior Recovery Edition report tells you if two files own the same block. If this is the case, then you will need to determine which files can be salvaged and which files have damaged data. See “Work with a recovered disk” on page 262.

If you discover that there are items missing from your disk, these items may be invisible. If you copy (drag) your disk to another disk, one that is large enough to hold all the original disk's contents, all files and folders will be copied, including invisible ones.

If critical items are still missing, and you have tried to recover the disk with Norton SystemWorks recovery tools, you might need to send your disk to a professional recovery service to recover your lost data files. Use the Finder to copy as many items as possible from the damaged disk to a safe location, such as another hard disk or removable media. You might need several removable media or floppy disks.

Another option is to copy only the files that you absolutely need, such as those that have changed since your last backup, or only your data files if you are planning to reinstall your system and applications. If you are unable to copy all of the files in the Finder the first time, repeat the copy procedure and select the skipped files in case some of them have become accessible. This might reduce the number of items that the recovery service will need to recover from your damaged disk.

About the DiskWarrior Recovery Edition report

After the disk directory rebuild is complete, DiskWarrior Recovery Edition displays a report with a summary of all the problems found and its recommendations. You can see more detail about the problems that were found and the items that were affected by directory damage.

To see more detail

- ❖ In the DiskWarrior Recovery Edition report window, click **Detail**.

For more information

More information is available in the *DiskWarrior Recovery Edition User Guide* PDF on the Norton SystemWorks for Macintosh CD.

To access the DiskWarrior Recovery Edition User's Guide

- 1 On the the Norton SystemWorks for Macintosh CD, open the **DiskWarrior** folder.
- 2 Double-click **DiskWarrior Recovery Edition User Guide PDF**.

You can install Adobe Acrobat Reader from the Norton SystemWorks for Macintosh CD. See [“To install Adobe Acrobat Reader”](#) on page 75.

Spring Cleaning quick start

Aladdin Spring Cleaning is an uninstaller program that helps you recover disk space by letting you remove and manage your files and programs. For more comprehensive documentation, see the *Spring Cleaning User's Guide* PDF in the Spring Cleaning folder on the Norton SystemWorks for Macintosh CD.

Spring Cleaning system requirements

Spring Cleaning has the following system requirements:

- Power Macintosh computer
- Mac OS 8.1 or later, with CarbonLib 1.0.4 or later
- Mac OS 8.1 requires Navigation 1.0.1 or later
- 4 MB free RAM
- 13 MB of disk space

Install Spring Cleaning

You can install the Spring Cleaning program from the Norton SystemWorks for Macintosh CD by first copying the Spring Cleaning installer icon to your computer's hard disk.

To install Spring Cleaning in Mac OS X

- 1 Copy the Spring Cleaning installer icon from the Norton SystemWorks for Macintosh CD to your computer.
- 2 Double-click the Spring Cleaning installer on your disk and continue from step 3 of ["To install Spring Cleaning."](#)

To install Spring Cleaning

- 1 In the Norton SystemWorks for Macintosh CD window, double-click **Install Spring Cleaning**.
- 2 Double-click **Spring Cleaning 3.5.1 Installer**.
- 3 In the Welcome window, click **Continue**.
- 4 Read the installation instructions, then click **Continue**.
- 5 To save the instructions, click **Save**.
- 6 To print the instructions, click **Print**.

- 7 In the Software License Agreement window, click **Agree**.
If you disagree, the installation is cancelled.
- 8 Click **Install**.
- 9 In the Select Location window, select the location in which to install Spring Cleaning.
If you do not want to install Spring Cleaning to the default location, navigate to another folder.
- 10 Click **Install** to finish the installation.
Now you are ready to use Spring Cleaning. See [“Use Spring Cleaning”](#) on page 265.

Uninstall Spring Cleaning

If you need to remove an installed version of Spring Cleaning from your computer, use the Norton SystemWorks for Macintosh Installer. The process is faster if all other programs are closed before you uninstall Spring Cleaning.

To uninstall Spring Cleaning

- 1 Follow steps 1-6 of the installation procedure.
- 2 In the pop-up menu, click **Uninstall**.
- 3 Check the **Standard Installation** check box.
- 4 Click **Uninstall**.
- 5 Locate and select the Spring Cleaning 3.5.1 folder.
- 6 At the bottom of the window, click **Select <folder name>**.
- 7 Click **Quit**.

Use Spring Cleaning

Spring Cleaning performs searches to find files that you want to remove from your computer. It displays a list of files that you might want to remove, so that you can perform actions on individual items or groups of items. Such actions include deleting files and programs or moving them to a StuffIt archive or removable disk. You can return some items to their original locations using the Restore command.

Spring Cleaning displays its 13 searches in the Search Type window. Each search finds items based on criteria that you specify. Each search serves a specific purpose and is described in detail in the online User's Guide.

If there are items in the Trash that meet the search criteria, they appear in the Search Results window. Empty the Trash before performing a search.

To use Spring Cleaning

- 1** In the Spring Cleaning folder on your disk, click **Spring Cleaning**.
- 2** In the Search Type window, select the search that you want to perform.
You may select only one search at a time.
- 3** Click **Next**.
- 4** If you have more than one disk or partition mounted, select the disks that you want to search.
- 5** Click **Next**.
Depending on the search that you selected, you may be prompted to provide additional information.
For more information about specific requirements, see the section in the online User's Guide for the search that you are performing.

5

Appendices

Norton AntiVirus for Macintosh messages



The following messages might be encountered when you are running Norton AntiVirus or Norton AntiVirus Auto-Protect.

Angle brackets (<>) identify variables or file names.

Mac OS 8.1–9.x and Mac OS X v10.1 messages

The entered subscription code is not valid. Please retype in the 9 character subscription code again.

You entered a virus definitions subscription code incorrectly. Try typing the number again.

The passwords did not match. Please try again.

The second password you typed does not match the first one.

That password is incorrect. Please try again.

You typed an incorrect password. If you forgot your password, see [“Troubleshooting in Norton AntiVirus for Macintosh”](#) on page 143.

The software to be installed requires Administrator or higher level access privileges.

Enter your administrator password.

See “General
Macintosh
troubleshooting”
on page 148.

There is not enough memory to view any more items. Collapse some of the expanded items and try again.

No more items can be viewed: <error string>. Collapse some of the expanded items and try again.

There is not enough available memory for Norton AntiVirus to display or store information for the number or the size of files on the disks to be scanned. Try collapsing folders, scanning a more limited area, or changing the memory allocated to Norton AntiVirus in the Finder. Also, set Report Preferences to show only infected files.

The startup disk is read-only. Preferences can be changed, but will not be saved when you quit.

If you restarted from the CD-ROM and changed Norton AntiVirus preferences, they apply to the current session, but are not saved to the active System Folder on the CD. To change and save preferences to your System Folder, you must install Norton AntiVirus on your hard disk.

The item(s) you have selected to scan contain too many files to scan with report all examined items on. There is not enough memory to display all examined items. You can continue scanning with report all examined items turned off.

See “About Report
Preferences” on
page 133, and
“General
Macintosh
troubleshooting”
on page 148.

The setting in Report Preferences should be changed to All Infected Files. You could also try scanning a more limited area, or changing the memory allocated to Norton AntiVirus in the Finder.

The “Event Type” option has been changed to “Scan System disk” because only the System disk or folder can be scanned at startup.

The startup scan you scheduled can only scan the System Folder or the entire system disk.

The “How often” option has been changed to “weekly” because “always” can only be used with startup or shutdown scans.

When you change the type of scan from startup or shutdown to some other type, the frequency must also change if it was set to always. The always setting only applies to startup and shutdown scans.

The “When” option has been changed to “at specified time” because virus definition updates cannot be scheduled at startup or shutdown.

Virus definitions updates cannot occur at startup or shutdown. You must specify a different time for the update to occur.

The “Start Time” for the displayed event can’t be saved until a valid number is entered in the <“minute”>, <“hour”>, or <“day”>, <“month”>, or <“year”> field.

In the Scheduler, make sure you enter a valid date and time for the event you are scheduling.

The scheduled events could not be saved because an error occurred: <error string>

Try deleting the Norton Schedule File (located in the Preferences folder within the System folder) and rescheduling the event.

There is no printer selected in the Chooser, or the selected printer could not be found.

You can’t print the Activity Log or scan report because your printer could not be found. Reselect the printer in the Chooser and try again.

There is not enough memory to add any more items to the scan report. You can continue scanning but non-infected items will be removed from the scan report and will not be added as the scan continues.

Norton AntiVirus uses available memory to store items for the scan report. If you have many files, you will not be able to record all items to scan. You can change the Report Preferences to record infected files only.

Mac OS 8.1–9.x specific messages

Norton AntiVirus could not locate the “Norton AntiVirus Macro Scan Lib” in the “Norton AntiVirus Additions” folder. It is required to scan for macro viruses.

The Norton AntiVirus Additions folder may not be in the default location. It must be in the Extensions folder in the active System Folder. For more information, see the NAV Install Log File located on the root of your hard disk. Try reinstalling Norton SystemWorks.

A network error occurred that will prevent Norton AntiVirus from alerting the Norton AntiVirus NT or NLM Server when a virus is found. You can continue, but any viruses identified will not be reported to a network server.

If you want to alert others on the network, save the scan report and send it separately. Also, make sure that you are on the network.

Norton AntiVirus could not locate “Norton AntiVirus Library” in the “Norton AntiVirus Additions” folder. It is required to scan for viruses.

The Norton AntiVirus Additions folder may not be in the default location. It must be in the Extensions folder in the active System folder. For more information, see the NAV Install Log File located on the root of your hard disk. Try reinstalling Norton SystemWorks.

Norton AntiVirus could not locate the “Norton AntiVirus Virus Defs” in the “Norton AntiVirus Additions” folder. It is required to scan for viruses.

The Norton AntiVirus Additions folder may not be in the default location. It must be in the Extensions folder in the active System Folder. For more information, see the NAV Install Log File located on the root of your hard disk. Try reinstalling Norton SystemWorks.

An error occurred loading the “Norton AntiVirus Library.” It is required to scan for viruses.

The Norton AntiVirus Additions folder may not be in the default location. It must be in the Extensions folder in the active System Folder. For more information, see the NAV Install Log File located on the root of your hard disk. Try reinstalling Norton SystemWorks.

Mac OS X v10.1 specific messages

Norton AntiVirus could not locate the “Norton AntiVirus Virus Defs” in the “Norton AntiVirus Additions” folder. It is required to scan for viruses.

The Norton AntiVirus Additions folder may not be in the default location. It must be in the /library/Application Support/Norton Solutions Support/Norton AntiVirus/Engine. For more information, see the NAV Install Log File located on the root of your hard disk. Try reinstalling Norton SystemWorks.

An error occurred loading the “Norton AntiVirus Library.” It is required to scan for viruses.

The Norton AntiVirus Additions folder may not be in the default location. It must be in the /library/Application Support/Norton Solutions Support/Norton AntiVirus/Engine. For more information, see the NAV Install Log File located on the root of your hard disk. Try reinstalling Norton SystemWorks.

Auto-Protect messages

Norton AntiVirus Auto-Protect is damaged. It may be infected with a virus!

Scan all volumes with Norton AntiVirus from a CD or locked floppy, then reinstall Auto-Protect.

The Norton AntiVirus Virus Defs file could not be loaded. Either the file is not in the Norton AntiVirus Additions folder, or it is invalid.

The Norton AntiVirus Additions folder may not be in the default location. It must be in the Extensions folder in the active System Folder. For more information, see the NAV Install Log File located on the root of your hard disk. Try reinstalling Norton SystemWorks.

The Norton AntiVirus Activity Data file was not found in Norton AntiVirus Additions or it is damaged.

The Norton AntiVirus Additions folder may not be in the default location. It must be in the Extensions folder in the active System Folder. For more information, see the NAV Install Log File located on the root of your hard disk. Try reinstalling Norton SystemWorks.

The Macro Scan Library could not be found, but Auto-Protect will still perform its other functions.

Norton AntiVirus Auto-Protect is searching for a required file. For more information, see the NAV Install Log File located on the root of your hard disk. Try reinstalling Norton SystemWorks.

The Norton AntiVirus Library could not be found in Norton AntiVirus Additions or it is damaged.

Norton AntiVirus Auto-Protect is searching for a required file. For more information, see the NAV Install Log File located on the root of your hard disk.

There was a problem with the Norton AntiVirus Preferences file.

Norton AntiVirus Auto-Protect is searching for the Preferences file, or the file may be damaged. Try deleting the file.

A PowerPC processor is required.

Norton AntiVirus must have a PowerPC processor to run.

Auto-Protect messages specific to Mac OS 8.1–9.x

Norton AntiVirus Auto-Protect requires the shared library <xxxx>.

Norton AntiVirus Auto-Protect is searching for a required file. For more information, see the NAV Install Log File located on the root of your hard disk. Try reinstalling Norton SystemWorks.

Norton AntiVirus Auto-Protect was not loaded because

One of the following appears at the end of the message:

- Norton AntiVirus Auto-Protect did not have enough memory.
 - Norton AntiVirus Auto-Protect is already loaded.
 - System 8.1 or Power Macintosh is required.

Auto-Protect messages specific to Mac OS X v10.1

Norton AntiVirus Auto-Protect could not continue. Please reinstall Norton AntiVirus and restart.

One of the files in /library/Application Support/Norton Solutions Support/Norton AntiVirus/Engine is missing or damaged. Reinstall Norton SystemWorks.

Norton Disk Doctor messages



See “Mac OS X
hardlink
messages” on
page 281.

Norton Disk Doctor displays status and error messages when it encounters problems or issues during a disk examination. Some messages appear when Norton Disk Doctor is examining a disk in any Mac OS environment, and other messages are specific to Mac OS X file and disk operations.

About Norton Disk Doctor messages

There are several types of messages in Norton Disk Doctor. In most cases, Norton Disk Doctor provides recommendations along with error messages. This section lists the most common messages, with general explanations.

Driver Descriptor Map and Partition Map messages

The Driver Descriptor Map and Partition Map structures contain information about the drivers that control a hard drive as well as a listing of the locations and sizes of the volumes on a drive.

The signature [block size / block count / driver count / driver start / driver size /driver type] is invalid.

These problems can prevent volumes from being available.

No partitions found.

The physical start block [signature / block count / logical data start / data count / partition type] is invalid [or incorrect].

These problems can prevent volumes from being available.

Master Directory Block and Volume Header Block messages

The Master Directory Block (MDB), located at sector 2 on an HFS-formatted volume, or the Volume Header Block (VHB) on an HFS Extended disk, contains essential bookkeeping information about a volume. This includes the number of files and folders on the disk, the amount of free disk space, the allocation block size, and the sizes and locations of such structures as the Volume Bitmap or Allocation File, the Catalog B-Tree, and the Extents B-Tree.

While the MDB or VHB is a vital structure, it is modified frequently and damage is not uncommon. In most cases, Norton Disk Doctor can easily repair problems in these areas.

The most common MDB or VHB errors are identified by these messages:

Message	Description
The Free block count is incorrect.	This is commonly associated with errors in the Volume Bitmap or Allocation File, since these structures keep track of free blocks on a volume.
The contents of the allocation file/bitmap do not agree with the locations of all files as shown in the Catalog.	These problems should be repaired whenever they occur, as they can lead to file damage through cross-linked files.
The signature is incorrect. The attributes are incorrect. The creation date [or modification date] is invalid.	These messages usually indicate that the structure is damaged.
The total file count [total directory count] is incorrect. The allocation block size [count of allocation blocks] is incorrect.	These messages indicate that the structure of the volume is incorrect and files might be inaccessible.
The next available file ID is incorrect. The Extents [or Catalog] B-Tree clump size is invalid. The physical size of the Extents [or Catalog] B-Tree is incorrect. Invalid extents are specified for the Extents [or Catalog] B-Tree.	These messages might indicate that the directories have been damaged.

B-Tree node messages

A B-Tree node is a sector or group of sectors in the Catalog or Extents B-Tree. These sectors contain important data about files on a volume. The following messages indicate problems with nodes in any B-Tree. If you see one of the following messages, you might have found some files or folders to have been inaccessible.

The node has an incorrect [forward link / backward link / type / depth / record count].

The node is on an incorrect level.

The node has incorrect offsets.

These error messages indicate that there is damage to a disk directory.

B-Tree header messages

The B-Tree header nodes contain important information about the structure of the Catalog and Extents B-Trees, which contain information about the files on a volume. If you see one of the following messages, you might have found some files or folders to have been inaccessible.

The tree depth [node size / key length / tree attribute flags] is / are incorrect.

The number of nodes [free node count / tree bitmap / root node number / first leaf node number / last leaf node number / leaf record count / tree header structure] is incorrect.

These messages are caused by problems with any B-Tree header. They indicate damage to your disk directories and they might cause problems if you're trying to mount a disk.

Catalog tree messages

The Catalog tree contains essential bookkeeping information, including the physical locations, names, and sizes of files and folders. It also contains data such as file types and creators, and the number of files contained by a folder. The following are Catalog tree messages.

General tree error.

When this error occurs, you might have seen a message that the disk cannot be mounted because it cannot be found.

There is no root directory.

This error indicates that an important part of the Catalog B-Tree is damaged or missing.

Record messages.

This error indicates damage to your directories.

The record has an incorrect key length [incorrect key / incorrect length].**The record is out of order.****The record key is duplicated.****The leaf record has an incorrect type.****The index record has an incorrect downlink.**

These errors can cause files to disappear or be inaccessible.

Catalog tree leaf node messages

A *leaf node* is a node in the Catalog B-Tree or Extents B-Tree that contains file records or extents records. File records contain information about files that are stored on a disk, including their sizes, types and creators, attributes, and the physical locations of their data. Extents records contain the physical locations of those portions of fragmented files that are not tracked in the Catalog tree. The following are Catalog tree leaf node error messages.

The leaf record has an invalid name.**<filename> has a duplicated ID.****No thread record found for <filename>.****No parent directory found for <filename>.****The leaf record has an incorrect Parent ID.**

These errors can cause files to disappear or folders to appear empty.

Catalog tree file record messages

The following are Catalog tree file record messages.

<filename> has an incorrect clump size [extent starting block number / extent length / data (or resource) starting block number / logical length / physical length].**<filename> has an empty extent descriptor.**

These errors cause files to be damaged.

Directory and file thread record messages

If you see directory and file thread record messages, it might mean that some folders might be empty or can't be opened. File thread record errors are not as serious as directory thread records, but should be fixed. The following are directory and file thread record messages.

Thread record <filename> has an invalid target Parent ID.

The thread record has an invalid target name.

Thread record <filename> has an invalid reserved byte.

No directory [or file] found for thread record <filename>.

The thread record does not point to its associated file [associated directory].

Thread record <filename> points to a file [or directory].

The file thread flag for <filename> is off but should be on [on but should be off].

These errors indicate that there is damage to a disk directory.

The thread record is unnecessarily large, and is wasting space.

This message does not indicate damage, but should be fixed.

Extents tree messages

The Extents B-Tree keeps track of extents (fragments) of fragmented files that are not stored in the Catalog B-Tree. The following are Extents tree messages.

The extent record does not match a known file.

The extent record has an invalid fork ID.

The extent record has an empty descriptor.

The extent record has an incorrect key [starting block number / block count].

These messages usually indicate that some files are damaged or lost.

File messages

File errors affect only the files that are listed and do not otherwise affect the validity of the structures of your disk.

If System files are causing malfunctions or you suspect that they are causing problems, delete them. Damaged System files or applications might cause your computer’s operation to be affected. However, some files might contain irregularities that can cause Norton Disk Doctor to flag them as damaged, even when they are functioning normally. The following are file messages.

File messages	Description
The files are crosslinked and might be damaged.	A cross-linked file shares at least part of its space on a disk with another file, which damages one or both files. Examine all files after fixing them. If the files cannot be fixed or are damaged, delete them from your disk.
The file names begin with a period.	In Mac OS X, many files use this convention, and you should not fix this problem if Norton Disk Doctor alerts you. In Mac OS 8.1-9.x, some applications expect their hidden data files to be named in this way. If you think that you have this type of application, do not fix this error.
The bundle bit is off, but should be on [on, but should be off]. The custom icon bit is off, but should be on [on, but should be off].	These types of messages might indicate that a file’s icon is incorrectly displayed in the Finder.
The file names contain a colon, which is an illegal character. The files have damaged resource forks. The files have bad creation dates [modification dates / backup dates].	Fixing these problems sets the incorrect date to match other correct dates or the current date in the file record.
The Finder information is incorrect.	This indicates a corruption of the flags that control how the Finder displays a file.
The file names contain a NUL (ASCII zero) character.	The NUL character can’t be typed on the keyboard.

HFS Plus Wrapper messages

The wrapper of an HFS Extended or HFS Plus-formatted volume is a small HFS partition that is visible if you attempt to mount an HFS Extended volume under Mac OS 8.0 or earlier. It contains a text file that explains the nature of an HFS Extended volume, and an invisible, minimal System file that is necessary to start an HFS Extended volume in Mac OS 8.1. Damage to the wrapper can cause an HFS Extended volume to be inaccessible or to fail to start the computer. The following are HFS Extended messages.

The embedded volume extent descriptor is missing [or incorrect].

The following messages indicate an error that causes HFS Extended volumes to be unavailable.

The root file count is incorrect.

The root folder count is incorrect.

The offset to the Volume Bitmap is incorrect.

The offset to the first allocation block is incorrect.

The default clump size is invalid.

The volume name is incorrect.

These problems might cause an HFS Extended volume to have difficulty mounting.

Mac OS X hardlink messages

Hardlinks are used in Mac OS X to make files appear in more than one folder. A hardlink is similar to an alias. It lets the same file be accessed from multiple locations. Like UNIX, Mac OS X lets you create hardlinks to existing files.

When you create a Mac OS X hardlink, the following process occurs:

- Your original file is renamed as inode###, where the ### symbols indicate a randomly generated ID.
- This renamed file is moved to an invisible directory named HFS+ Private Data at the root of your drive.
- Mac OS X creates hardlink files that use the original file's name at your original file's location and wherever you create a hardlink. There is no limit to the number of hardlink files. The inode file keeps track of them all.

Opening a hardlink file in Mac OS X is the same as opening the original file. In Mac OS X, if you delete a hardlink file, the system changes the hardlink count in the inode file. When you delete the last hardlink file, the count goes to zero, and the original file (the inode file) is also deleted.

Norton Disk Doctor displays the following messages if hardlink problems are found.

Message	Description
No hardlink files reference the indirect files.	If no hardlink files to your original file (the inode file) exist, you can't access your original file in Mac OS X. This situation can arise if you accidentally delete hardlink files while your computer is started in Mac OS 9.x, or if there is directory corruption. Norton Disk Doctor repairs this by creating a new hardlink file for the inode. The new hardlink file is placed in the Lost and Found folder created by Norton Disk Doctor.
The indirect files have incorrect hardlink reference counts.	If the inode file's count of the number of hardlinks is incorrect, the Mac OS X Finder can experience trouble when it tries to keep track of the hardlinks. This situation can arise if you accidentally delete or duplicate hardlink files while your computer is started in Mac OS 9.x, or if a directory was corrupted. Norton Disk Doctor repairs this problem by adjusting the inode reference count to match the number of hardlinks that are found on the drive.

Message	Description
No target files were found for the hardlink files.	If there is no target (inode) file for a hardlink, the hardlink has no data to access and is useless. This situation arises if you accidentally delete inode files while your computer is started in Mac OS 9.x, or if there is directory corruption. Norton Disk Doctor helps eliminate these useless files by letting you delete them.
The BSD mode for the files is incorrect.	<p>BSD flag bits help Mac OS X classify files and folders. In order for file hardlinks to work properly if the item is a file, the file being linked to must have its BSD mode properly set. This problem can arise through directory corruption and can prevent hardlinks from working. Norton Disk Doctor can fix this by resetting the BSD mode.</p> <p>The current version of Mac OS X does not use the BSD file bit except when files are hardlinked, and so, for any nonhardlinked file, the file mode should be zero. The Mac OS X Finder can experience problems if the BSD mode is set to an invalid value. This problem can arise through directory corruption. Norton Disk Doctor can fix this by resetting the BSD mode.</p>



Using AppleScript with Norton AntiVirus



Norton AntiVirus for Macintosh lets you use your AppleScript to run certain features. To use this scriptable component, you must write an AppleScript script. Information on creating scripts is available on your Macintosh OS CD. AppleScript is not supported by Symantec Technical Support.



Scripting is not available on Norton AntiVirus for Mac OS X v10.1. However, the Command Line Scanner can be called with UNIX shell scripts.

Script commands

The following commands are available for use with Norton AntiVirus for Macintosh:

Script command	Description
scan	Scan the given files and folders for viruses.
load antivirus	Load the Norton AntiVirus Library and Norton AntiVirus Macro Scan Lib.
unload antivirus	Unload the Norton AntiVirus Library and the Norton AntiVirus Macro Scan Library.
get file of	Extract the file object from a report object.
get viruses of	Get the list of viruses that infect the file of the report.

Script command	Description
get repaired status of	Get the status of the repair from a given report.
Class scan result	The result of a scan, including the total number of files scanned, and the reports of all irregular (damaged or infected) files.

Within the scripting, you can cause Norton AntiVirus for Macintosh to display or hide its progress during scans. The script-initiated scan results, including the discovery and repair of infected files, can be saved in a text file. The Norton AntiVirus for Macintosh scriptable component does not handle compressed files.

Using Norton AntiVirus on a network



You can run Norton AntiVirus on any AppleTalk Transaction Protocol server such as AppleShare or TOPS. You can configure Norton AntiVirus to alert you or others on the network if a virus is found on a client computer running Norton AntiVirus NetWare Loadable Module (NAV NLM) or Norton AntiVirus for Windows NT (NAV NT). This appendix offers tips and suggestions for using Norton AntiVirus efficiently on a network.

Notes to the administrator

Set up Norton AntiVirus the following way in a networking environment:

- Run Norton AntiVirus Auto-Protect and the Norton AntiVirus application on the system administrator's computer.
 - Make sure Norton AntiVirus Auto-Protect is run on all workstation Macintosh computers.
 - Use the Scheduler command from the Norton AntiVirus Tools menu to schedule periodic scans of all network drives.

Scanning network drives

When you are scanning network drives from a workstation, the server slows down for other users. If others are creating, deleting, or moving files on a network drive while Norton AntiVirus is scanning, all files may not get scanned.

To prevent files from not getting scanned, do the following:

- Make sure that you are the only one logged on to the server when scanning network drives.
- Shut down the server and restart it from the Norton SystemWorks for Macintosh CD, then perform the scan.

Using Norton AntiVirus Auto-Protect on a server

Use Norton AntiVirus Auto-Protect on your network servers to protect against viruses. Norton AntiVirus Auto-Protect monitors file activity and alerts you if a virus tries to infect any applications on the server.

In Mac OS 8.1–9.x, if you are using the Prevention feature to monitor virus-like activities, you may experience delays because Norton AntiVirus Auto-Protect constantly monitors the Macintosh on which it is installed.

To prevent a network slowdown when Prevention features are active

- 1 In the Norton AntiVirus main window, click **Preferences**.
- 2 In the Prevention Preferences, click **Standard**.
The Standard option monitors applications for the most common virus behavior, such as adding code instructions to an application file.
- 3 In the Alert Preferences, click **Remove alerts after**.
- 4 In the seconds text box, type **0**.
This causes Norton AntiVirus Auto-Protect to accept the default button in the alert box, and prevents virus-like activity alerts from preventing access to files on the server.
- 5 In the Report Preferences, under Which Alerts To Log, click **All**.
This ensures that virus-like alerts are logged in the Activity Log so that you can view the alerts at a later time.

See "About Prevention Preferences" on page 128.

See "About Alert Preferences" on page 131.

Preparing an emergency response plan

To be fully prepared in case of a virus attack on a workstation, be sure to have a detailed emergency response plan written and distributed within your networking group before a problem arises. This maintains order and prevents panic in case of an infection.

The following sections include a partial listing of the items that should be included in your plan. Complete your plan based on the dynamics and needs of your organization.

Before a virus is detected

Conduct an informational meeting with your network users to discuss the basic nature and behavior of computer viruses. Stress that while having a computer virus on your system is reason to take immediate action, there is no need to panic. Emphasize that many viruses spread from illegal software copies, and prohibit the use of such software in your organization. Finally, explain how you've configured Norton AntiVirus to respond to a virus.

See "About Alert Preferences" on page 131.

In Mac OS 8.1–9.x, you can add a customized message to all virus alerts and virus-like activity alerts to indicate who the user should call for help (for example, "Call Help Desk for help at ext. 5555").

Instruct your users to:

- Scan all software before using it. This includes programs downloaded from the Internet as well as new software.
- Watch for warning signs such as frequent system crashes, lost data, screen interference, or suddenly unreliable programs.
- Keep a current store of virus-free program backups.
- Avoid running programs from unscanned removable media.
- Write-protect removable media before using it in someone else's computer.

To protect the workstations:

- Scan each workstation to make sure that it is virus-free.
- Train your users to use a file backup utility on a regular basis.
- Train your users to update the virus definitions file when it becomes available.

To protect the network:

- Password-protect all network executable directories so that only the administrator has write access to them.
- Scan for viruses on new and rented computers before using them.
- Schedule periodic scans of all network servers.
- If you are using Novell NetWare or Windows NT servers, use Norton AntiVirus Enterprise Solution components to protect servers from virus infections.

See "Service and support solutions" on page 291.

If a virus is detected

If a virus is detected on your network, remove it from all computers attached to the network.

To remove a virus

- 1 Physically disconnect the workstation from the network.
- 2 Eradicate the virus on the workstation before reconnecting to the network.
- 3 Notify other users on the network to scan for viruses immediately.
- 4 Scan your network servers for viruses.
- 5 In Mac OS 8.1–9.x, set Norton AntiVirus Preferences to alert you over a network running under Norton AntiVirus NetWare Loadable Module (NAV NLM) or Norton AntiVirus for Windows NT (NAV NT).

See [“About Alert Preferences”](#) on page 131.

Service and support solutions

Service and support information is available from the Help system of your Symantec product. Click the Service and Support topic in the Help index.

Technical support

Symantec offers two technical support options:

- Online Service and Support
Connect to the Symantec Service & Support Web site at <http://service.symantec.com>, select your user type, and then select your product and version. This gives you access to current hot topics, knowledge bases, file download pages, multimedia tutorials, contact options, and more.
- PriorityCare telephone support
PriorityCare fee-based telephone support services are available to all registered customers. You can access the PriorityCare number for your product through the Service & Support Web site. You'll be led through the online options first, and then to the telephone contact options available for your product and version.

Support for old and discontinued versions

When a new version of this software is released, registered users will receive upgrade information in the mail. Telephone support will be provided for the old version for up to twelve months after the release of the new version. Technical information may still be available through the Service & Support Web site (<http://service.symantec.com>).

When Symantec announces that a product will no longer be marketed or sold, telephone support will be discontinued 60 days later. Support will be available for discontinued products from the Service & Support Web site only.

Customer service

Access customer service options through the Service & Support Web site at <http://service.symantec.com>. From this site, you can receive assistance with non-technical questions, and for information on how to do the following:

- Subscribe to the Symantec Support Solution of your choice.
- Obtain product literature or trialware.
- Locate resellers and consultants in your area.
- Replace missing or defective CD-ROMS, disks, manuals, and so on.
- Update your product registration with address or name changes.
- Get order, return, or rebate status information.
- Access customer service FAQs.
- Post a question to a Customer Service representative.

For upgrade orders, visit the online upgrade center at:
<http://www.symantecstore.com>

Worldwide service and support

Technical support and customer service solutions vary by country. For information on Symantec and International Partner locations outside of the United States, please contact one of the service and support offices listed below, or connect to <http://service.symantec.com> and select your region under the Global Service and Support.

Service and support offices

North America

Symantec Corporation
555 International Way
Springfield, OR 97477
U.S.A.

<http://www.symantec.com/>

Argentina and Uruguay

Symantec Region Sur
Cerrito 1054 - Piso 9
1010 Buenos Aires
Argentina

<http://www.service.symantec.com/mx>
+54 (11) 5382-3802

Asia/Pacific Ring

Symantec Australia
Level 2, 1 Julius Avenue
North Ryde, NSW 2113
Sydney
Australia

http://www.symantec.com/region/reg_ap/
+61 (2) 8879-1000
Fax: +61 (2) 8879-1001

Brazil

Symantec Brasil
Market Place Tower
Av. Dr. Chucri Zaidan, 920
12 andar
São Paulo - SP
CEP: 04583-904
Brasil, SA

<http://www.service.symantec.com/br>
+55 (11) 5189-6300
Fax: +55 (11) 5189-6210

Europe, Middle East, and Africa

Symantec Customer Service Center
P.O. Box 5689
Dublin 15
Ireland

http://www.symantec.com/region/reg_eu/
+353 (1) 811 8032

Mexico

Symantec Mexico
Blvd Adolfo Ruiz Cortines,
No. 3642 Piso 14
Col. Jardines del Pedregal
Ciudad de México, D.F.
C.P. 01900
México

<http://www.service.symantec.com/mx>
+52 (5) 661-6120

Other Latin America

Symantec Corporation
9100 South Dadeland Blvd.
Suite 1810
Miami, FL 33156
U.S.A.

<http://www.service.symantec.com/mx>

Subscription policy

If your Symantec product includes virus, firewall, or web content protection, you might be entitled to receive protection updates via LiveUpdate. The length of the subscription could vary by Symantec product.

When you near the end of your subscription, you will be prompted to subscribe when you start LiveUpdate. Simply follow the instructions on the screen. After your initial subscription ends, you must renew your subscription before you can update your virus, firewall, or web content protection. Without these updates, your vulnerability to attack increases. Renewal subscriptions are available for a nominal charge.

Every effort has been made to ensure the accuracy of this information. However, the information contained herein is subject to change without notice. Symantec Corporation reserves the right for such change without prior notice.

January 15, 2002

Aladdin Systems

technical support

The User's Guide should answer all your questions. There is also online technical support help at www.aladdinsys.com/support.

Registering Spring Cleaning and iClean

Free technical support is available to all registered users, so be sure to register your copy of Spring Cleaning and iClean. After registering, you will be notified of upgrades, new products, and special offers from Aladdin.

There are four ways to register:

- Register online at www.aladdinsys.com/register/index.html
- In the iClean iSupport menu, click Software Registration
- Fill out the postage-paid registration card and mail it to Aladdin
- Call Aladdin customer service at (831) 761-6200

Requesting technical support

Registered users may also contact Aladdin technical support via our online support service, phone, fax, or mail. Please be sure to have the following information available prior to calling, or include it in your email, fax, or letter.

Write down your questions or have a clear idea of the problem.

Be prepared to duplicate the problem. Write down the steps you took that caused the problem.

Be prepared to give the following information:

- Any error messages
- Your computer model
- Your Mac OS version (system version)
- The amount of RAM installed on your machine
- Your Spring Cleaning or iClean version number and registration number

Contacting Aladdin Systems

You can contact Aladdin Systems through the Internet, by fax, by phone, or through the postal system.

Web	www.aladdinsys.com/support
email	service@aladdinsys.com
Fax	(831) 761-6206
Phone	(831) 761-6200
Mail	Aladdin Systems, Inc. 165 Westridge Drive Watsonville, CA 95076

Dantz Development Corporation

technical support

For information on Technical Support options, please call Dantz at 888-777-5664, or visit the Dantz web site: www.dantz.com/support_faq.

Customers outside the United States, Canada, and Latin America should contact technical support as detailed below or visit the Dantz web site to find contact information for the authorized distributor in your area.

- United Kingdom:
Phone: +0800 169 77 64
Fax: +33 1 55 33 02 09
Email: eurosupport@dantz.com
- All other European countries:
Phone: +33 1 55 33 02 10
Fax: +33 1 55 33 02 09
Email: eurosupport@dantz.com
- United States and rest of world:
Standard Technical Support:
Phone: 925 253 3050
Fax: 925 253 9099
Email: techsupport@dantz.com

Contacting Dantz Development Corporation

- North America
4 Orinda Way, Building C
Orinda, CA 94563 USA
Phone: 925 253 3000
Fax: 925 253 9099
info@dantz.com (automated response)
customer_service@dantz.com
www.dantz.com
- Dantz Europe
77, rue du Faubourg St-Denis
75010 Paris - France
Phone: +33 1 55 33 02 00
Fax: +33 1 55 33 02 09
europe@dantz.com

Glossary

access rights	The types of operations and files that a user or group can access and the actions that the user or group is permitted to perform with those directories and files.
administrator	1. A person who oversees the operation of a network. 2. A person who is responsible for installing programs on a network and configuring them for distribution to workstations. This person may also update security settings on workstations.
alert	A dialog box that appears in a graphical user interface (GUI) to signal that an error has occurred, or to provide a warning.
alias	A shortcut icon that points to an original object such as a file, folder, or disk.
browser	A software application that makes navigating the Internet easy by providing a graphical user interface. This lets the user click menus, icons, or buttons rather than learn difficult computer commands. Also called a Web client.
compressed file	A file that has been compressed using a special data storage format in order to save space on your disk.

compression	Using a mathematical algorithm to process data from a file or disk, such that the resulting data occupies less physical space on the disk. Individual files or entire disks can be compressed by various types of utility software.
disk icon	An icon that represents a disk.
document file	A file that is created by, or associated with, a program and contains no executable code. Examples include word processing documents, databases, and spreadsheets.
download	To transfer a file from one computer to another, through a modem or network. Download usually refers to the act of transferring a file from the Internet, a service such as America Online, or a network server.
download directory	The directory in which files that are received during a file transfer are stored.
email (electronic mail)	A method of exchanging messages and files with other people via computer networks. A popular protocol for sending email is Simple Mail Transfer Protocol (SMTP). Popular protocols for receiving email are Post Office Protocol 3 (POP3) and Internet Message Access Protocol 4 (IMAP4). Web-based email services use HyperText Transfer Protocol (HTTP) for sending and receiving email.
executable file	A file that contains program code that can be launched. Generally includes any file that is a program, extension, or a system file.
file server	A storage device that is connected to a network that gives network users access to shared programs and data files.
file type	A four-character code that is stored in a file, usually with a creator code. Programs use this code to determine if a file is in a format that can be read by the program.
hard disk	A device that reads data from, and writes data onto, a disk.

icon	A graphic symbol that is used to represent a file, folder, disk, or other entity.
infected file	A file that contains a virus.
Internet	A decentralized global network that connects millions of computers.
known virus	Any virus that Norton AntiVirus can detect and identify by name.
Local Area Network (LAN)	A group of computers that is connected for the purpose of sharing resources. The computers on a local area network are typically located within a defined physical space, such as a single building, or section of a building.
local	A term that refers to your computer, as opposed to a remote computer.
locked disk	See write-protect .
locked file	A file that can be viewed, but cannot be written to or deleted. Also referred to as read-only.
network	A set of computers and associated hardware that are connected in a work group for the purpose of sharing information and hardware among users.
operating system	A program that ties the capabilities of computer hardware and software to input/output devices such as disks, keyboards, and mice.
password	A character sequence that is typed by users to verify their identities to a network or program. The most secure passwords are difficult to guess or find in a dictionary, and contain a combination of capital letters, lowercase letters, numbers, and symbols.
program	A set of instructions that can be executed by a computer, and are written for a specific purpose such as word processing or creating a spreadsheet. Also called software.
read-only	A disk, folder, or file that contains data that can be read, but cannot be written to or deleted. Also referred to as locked or write-protected.

removable media	Disks that can be removed, as opposed to those that cannot. Some examples of removable media are floppy disks, disk cartridges (SyQuest and Bernoulli, for example), CDs, and Zip disks.
script	A list of instructions that can be executed without user interaction. Unlike other types of programs, scripts can be opened with text editors or word processing programs, so they are very easy to change. Examples of scripts include Visual Basic programs and network logon scripts.
startup disk	A disk that contains the necessary system files to start your computer. Startup disk usually refers to a floppy disk or CD that can be used to start the computer in an emergency.
system extension	A program that loads into memory when a Macintosh computer is started. Also known as an INIT or startup document.
System file	The file that is stored in the System folder that the Macintosh computer uses to start.
System folder	The folder on the startup disk that contains the files that your Macintosh computer requires to run, such as the System file, Finder, system extensions, desk accessories, and control panels.
Trojan horse	A destructive program that is often designed to cause damage while disguised as something useful or interesting. Unlike viruses, Trojan horses don't make copies of themselves. Some Trojan horse programs perform malicious actions on the computer on which they are run, while others, such as Back Orifice, provide remote-control capabilities for hackers.
unknown virus	A virus for which Norton AntiVirus does not contain a virus definition. <i>See also</i> virus definitions file .

virus	A self-replicating program that is written to alter the way that your computer operates without your permission or knowledge. A virus attaches copies of itself to other files, and when activated, may damage files, cause erratic computer behavior, or display annoying messages. Self-replication differentiates viruses from other virus-like computer infections such as Trojan horse programs and worms. <i>See also</i> virus-like activity .
virus definitions	Virus information that lets an anti-virus program recognize and alert you to the presence of a specific virus. <i>See also</i> unknown virus ; Virus List .
virus definitions file	A file that is used by Norton AntiVirus to find and repair viruses. The virus definitions files must be updated regularly. LiveUpdate automates the process of downloading updated virus definitions files.
Virus List	A list that shows all of the viruses for which Norton AntiVirus has virus definitions. It is important to update this list regularly.
virus-like activity	An activity or action that Norton AntiVirus perceives as the work of an unknown virus. Virus-like activity alerts do not necessarily indicate the presence of a virus, but should be investigated.
Web page	A single document on the World Wide Web (WWW) that is identified by a unique URL. A Web page can contain text, hyperlinks, and graphics.
Web site	A group of Web pages that is managed by a single company, organization, or individual. A Web site may include text, graphics, audio and video files, and hyperlinks to other Web pages.
World Wide Web (WWW)	The collection of hypertext documents that are stored on Web servers around the world. Also called WWW or simply the Web. The Web allows universal access to a vast collection of documents that is stored in HTML format as Web pages.

worm	A program that replicates without infecting other programs. Some worms spread by copying themselves from disk to disk, while others replicate only in memory to affect a computer’s performance.
write-protect	An action that is performed on disks to prevent viruses from infecting them. To write-protect a 3.5-inch floppy disk, slide the tab on the back of the disk to uncover the hole through the disk. Also referred to as a locked disk or read-only disk.

Index

A

Absolute Value, Square Root, and Log 10, FPU benchmark 235
accessing preferences 120-121
Activity Log, customizing 133
Add Custom Disk command 68
administrator, network 287
Adobe Acrobat Reader, using with User's Guide PDF 52
Aladdin Spring Cleaning 255, 264
Aladdin Systems, support information 295
Alert preferences 131-133
alerts 107-113
 file changed 112
 Norton Disk Doctor 275
 Norton FileSaver 66
 virus-like activity 112-113
alias files
 and Wipe Info Trash 241
 identified 178
All Read and All Write benchmark 234
allocation blocks, displaying 174
Alsoft DiskWarrior Recovery Edition. *See* DiskWarrior
America Online
 connecting before LiveUpdate 79
 connecting to Symantec Web site 50
anchor files, unmovable in Speed Disk 214

anchor specifications, in Speed Disk Profile Editor 221
Apple Guide Help 73
AppleScript, using with Norton AntiVirus 285
AppleTalk 287
application, registering 48
applications
 displaying information for 177-179
 opening with Fast Find 185-187
 sharing on networks 178
automatic protection, turning off or on with Control Strip 60
Auto-Protect
 Control Strip module 60
 description 59
 finds and repairs viruses 107
 fine-tuning performance 61
 messages 273, 274
 on server 288
 protection levels 44
 turning off 60

B

backing up
 before using Speed Disk 206
 damaged disks before recovering 163
 data, before optimization 208

benchmarks

- Absolute Value, Square Root, and Log 10 FPU 235
- Bit Shifts 230
- BlockMove Aligned/Misaligned 230
- Branches 230
- CopyBits 232
- Disk 232
- Video 231

Bit Shifts benchmark 230

BlockMove Aligned/Misaligned benchmark 230

blocks

- bad
 - reformatting disk as last resort 252
 - unmovable in Speed Disk 214
 - viewing numbers in Speed Disk 213

Branches benchmark 230

B-Tree

- header messages, Norton Disk Doctor 277
- node, Norton Disk Doctor messages 277
- Norton Disk Doctor test 157

Bypass Deletion Tracking hot key 65

Bypass Update hot key 65

C

cables, checking 244

cache cards, and System Info 229

Catalog tree

- b-tree, Norton Disk Doctor test 157
- nodes, placement after Rebuild
 - Directories 172
- Norton Disk Doctor messages 277
- UnErase search option 199

CD

- availability for newest Macintosh models 34
- contents 52
- ejecting on restart 48
- Mac OS System folder 51
- User's Guide PDF 74
- using to restart 34
- using with Rebuild Directories
 - command 172
- when to use for restart 17

CD-ROM Mastering Speed Disk profile 215

changing

- file signature codes 184-187
- file, folder, disk information 172-179
- Norton Disk Doctor default settings 156
- Norton FileSaver Hot Key
 - combinations 65
- password 140
- System Info results listing 226

Check Files command 212

Check Media command 212

checking

- cables 244
- disks 158-162
- for viruses 93

comments, deleted by Rebuild Desktop 166

components, installing 42-43

consolidating free space 222

context-sensitive Help 73

contextual menu 58

contextual menu commands 57

control panels

- extension conflicts 248
- Startup Disk 48
- testing effect on system performance 225

Control Strip 60

CopyBits benchmark 232

CPU

- benchmark settings 230
- test suite benchmarks 229-230

creating Wipe Info Trash 241

creator code search, Fast Find 173

custom disks, in UnErase 68

custom installation

- components 42
- folder selection 42
- selecting 42

Custom Preferences 43

customizing

- Activity Log 133
- DiskLight 236
- Fast Find results list 184
- LiveUpdate 81
- Norton AntiVirus 117-140
- preferences 120
- scan reports 133

D

Dantz Development, Retrospect Express support 298

Dantz Retrospect Express. *See* Retrospect Express

data

- making unrecoverable 242
- wiping free disk space 237, 240
- wiping in Speed Disk 223

data forks

- File Type and scans 195-196
- recovering 195

DDM messages 275

decontamination procedures 97

defragmentation vs. optimization 207

defragmenting

- files 211-212
- free disk space 222

Desktop

- moving files to 186
- rebuilding in Norton Disk Doctor 165

Detail View, in Speed Disk 213

detailed ratings, System Info 228

devices

- displaying driver information 175
- locating 197
- See* specific device names

directories

- rebuilding in Volume Recover 171
- verifying in Norton Disk Doctor 157

Directory Thread messages, Norton Disk Doctor 279

disabling, Norton FileSaver 62, 63

Disk Doctor Scan contextual menu

- command 57

Disk Resizing Speed Disk profile 215

Disk test suite (System Info)

- benchmarks 232-234
- overview 232

DiskLight

- and Norton Disk Doctor 236
- and removable media devices 236
- and SCSI devices 236
- customizing 236
- device ID display 236

DiskLight (*continued*)

- features 235-236
- icon 236

disks

- checking, media (surface) 156
- diagnosing 153-159, 161-169
- directory recovery, DiskWarrior
- displaying information for 172-173
- finding missing
 - with Norton Disk Doctor 155
 - with UnErase 197
- fragmentation level messages 62
- map, viewing in Speed Disk 213
- missing, recovery procedure 71
- recovering with Volume Recover 168
- reformatting after Wipe Entire Device 240
- repairing damaged 154
- restoring 168-171
- selecting for custom installation 43
- setting preferences for checks of 155
- space, consolidating 222
- System Info Disk tests 233
- viewing block number in Speed Disk 213
- wiping entire 239
- wiping free space 237, 240
 - in Speed Disk 223

DiskWarrior 255, 260

- HFS and HFS Extended disks 261

displaying recovered files/folders 185

Documentation folder 51, 52

Draw Picture benchmark 232

DrawText benchmark 232

E

ejecting CD 48

email attachments, scanning 96

emergency procedures

- do not install 17
- Norton SystemWorks 17
- Volume Recover methods 167
- when to start from CD 17

emergency response plan 288-290

Erase Free Space command 223

- erased files
 - searching for 195-202
 - viewing information about 193
- Erased Files search, UnErase 199
- examining disks
 - using contextual menus 57
 - with Norton Disk Doctor 37
- Exceptions List, managing 140
- extensions
 - conflicts 248
 - effect on system performance 225
- Extents
 - B-Tree messages, Norton Disk Doctor 279
 - checking 157
- external devices, troubleshooting 245

F

- Fast Find
 - search methods 184
 - type and creator code search 173
- File Type search, UnErase 199
- files
 - access permission 119
 - bad resource forks 163
 - changing attributes 186
 - changing icons 186
 - defragmenting 211-212
 - deleting infected 111
 - disappeared, avoid installing 17
 - disappearing from Desktop 188
 - DiskLight and 236
 - displaying information for
 - Norton Disk Doctor 177-179
 - erasing with Wipe Info 238-239
 - finding
 - by kind 182-184
 - lost 185, 187
 - fragmentation 206-207
 - fragmentation alert in Norton
 - FileSaver 62
 - locking with Fast Find 186
- files (*continued*)
 - Norton Disk Doctor
 - messages 279
 - preferences 157
 - tests 157
 - placement during optimization 207
 - rejoining
 - data and resource forks 195
 - recovered segments 197
 - segments 197
 - repairing infected 110
 - stationery pad 178
 - types, viewing in Speed Disk 213
 - unmovable types in Speed Disk 214
 - updating with LiveUpdate 81
 - viewing contents, in Fast Find 185
- files/folders, move to Desktop 186
- Finder
 - bypassing floppy disk detection 159, 170
 - changing comments in Get Info 186
 - contextual menu commands 57
 - displaying file in window 185
 - rebuilding Desktop in Norton Disk
 - Doctor 165
 - rejecting bad media 159
 - windows 185
- Finder flags, displaying
 - application/file 178
 - folder 176
- finding
 - files by kind 182-184
 - lost files 181
 - missing disks 71
 - missing disks with UnErase 197
- FireWire devices
 - adding to device list 68
 - troubleshooting 247
 - wiping 239
- firmware, supported by Retrospect
 - Express 259
- floppy disks
 - bypassing Finder detection 159, 170
 - drives, troubleshooting 246

Floppy Scan preferences 122-123

folders

- disappearing from Desktop 188
- DiskLight and 236
- displaying information, Norton Disk Doctor 173
- erasing with Wipe Info 238-239
- finding lost 185, 187
- locking with Fast Find 186
- on CD 255
- selecting for custom installation 43

FPU (Floating Point Unit) test suite

- benchmarks 234-235
- weight in System Rating 234

fragmentation

- alert in Norton FileSaver 62
- defined 206
- file 205, 206-211
- report 213

free space consolidation, Speed Disk 207

Function Call benchmark 230

G

General Preferences 43

General Use Speed Disk profile 215

Get Info comments, deleted by Rebuild Desktop 166

Glossary 299

H

hard disks

- performance affected by
 - fragmentation 205
- reformatting 252
- space required for Disk suite tests 233
- troubleshooting 245

Help

- Apple Guide 73
- button 73
- in Mac OS X 74
- opening 73

HFS disks, recovery with DiskWarrior 261

HFS Plus

- identification in Speed Disk 213
- Wrapper, Norton Disk Doctor messages 281

Hot Keys in Norton FileSaver

- Bypass Deletion 65
- Bypass Scan/Update 65
- changing 65
- Scan Now 65
- Update Now 65

I

icons

- editing 186, 187
- Fast Find alias 182
- stored in resource forks 178
- Wipe Info Trash 241

IDE device, wiping 239, 240

infected file

- deleting 111
- repairing 110

information window, Speed Disk 213

installation, customizing 43

installing

- CD contents 52
- do not install in emergency 17
- if a virus is found 36
- library files 144
- Norton SystemWorks 44
- selected components 43
- when not to install 181

Instruction Overlap benchmark 230

instructions, user 289

Integer to Single and Single to Integer benchmark 235

Internet

- link to Late Breaking News 50
- using to register Symantec products 48

invisible bit Finder flag 178

K

keeping files current 77-85
 keyboard shortcuts
 in Apple Guide Help 73
 in Norton FileSaver 65

L

Late Breaking News, reading 50
 library files, problems after installing 144
 Lines benchmark 232
 LiveUpdate
 checking file dates 82
 customizing 81
 emptying Trash 82
 keeping current with 77-89
 scheduling 83-85
 updating files 81
 using with America Online 79
 viewing summary 82
 What's New file 82
 locked disks, Volume Recover and 168
 locking files/folders with Fast Find 186

M

Mac OS System
 enabler file 34
 on CD 34, 51
 Mac OS X
 accessing Help 74
 hardlink errors 281
 Macintosh
 CD for newer models 34
 main logic board 246
 restarting 17
 restarting methods 34
 testing performance 223-225
 main logic board, Macintosh 246
 managing virus-like activities 140
 match
 signatures, Speed Disk Profile Editor 221
 specifications, Speed Disk Profile Editor 220

MDB (Master Directory Block)
 Norton Disk Doctor messages 276
 Norton Disk Doctor test 157
 memory bandwidth tests 230
 Memory Read and Write benchmark 230
 menus
 contextual 57
 password-protecting 138-140
 messages
 Auto-Protect 273
 B-Tree header 277
 Norton AntiVirus 269-271
 Norton FileSaver file fragmentation 62
 repair alert 162, 163
 missing disks, locating 197
 monitoring for virus-like activities 140-141
 moving files/folders 185, 186
 Multimedia Speed Disk profile 215
 Multiply and Divide CPU benchmark 230
 Multiply, Divide, Add, and Subtract FPU
 benchmark 235

N

name locked files 178
 NAV 7.0 QuickScan 147
 network
 administrator notes 287
 implementation 287-290
 preventing slowdown 288
 protecting 289
 sharing applications on 178
 News, Late Breaking 50
 Norton AntiVirus
 and AppleScript 285
 contextual menu 58
 custom preferences 120-121
 customizing 117-140
 description 27
 messages 269-271
 network implementation 287-290
 protection levels 43
 small scanner 58
 updating virus definitions 79

Norton Disk Doctor 153-166
 and Norton FileSaver 62, 153
 and UnErase 181
 before running Speed Disk 206
 examining disks before installing 37
 messages
 B-tree node 277
 Catalog tree 277
 Directory Thread 279
 Drive Descriptor 275
 Extents B-Tree 279
 file errors 279
 HFS Extended Wrapper 281
 Mac OS X hardlink 281
 Master Directory Block (MDB) 276
 Partition Map 275
 Volume Header Block (VHB) 276
 Rebuild Desktop command 165, 166
 responding to problems 160
 running 153-166
 running from CD for repairs 36
 setting preferences 155
 starting 161
 tests 160
 using 153-166
 Volume Recover and 153, 172

Norton FileSaver
 alerts 66
 and Volume Recover 169, 170
 Bypass Deletion Tracking hot key 65
 ensuring activity after installation 71
 files updated by Speed Disk 211
 high fragmentation level warnings 62
 preferences 66
 preventive maintenance 71
 relationship to other tools 71
 running Norton Disk Doctor or Speed
 Disk 64, 65, 66
 Scan Now hot key 65
 Update Now hot key 65

Norton SystemWorks for Macintosh
 Apple Guide shortcuts 73
 emergency procedures 17
 examining disk 37
 installing 44
 special features 255
 tools 25
 uninstalling 52

O

opening files with Fast Find 185-187
 optimization 207
 backing up data before 208
 built-in profiles 215
 contextual menu command 57
 defined 206
 disks 205
 free space consolidation 207
 preparation 208
 vs. defragmentation 207
 options. *See* preferences

P

Parameter RAM. *See* PRAM
 Partition Maps, Norton Disk Doctor
 messages 275
 partitions, disk, Get Info 175
 password
 changing 140
 protecting menus 138-140
 removing protection 140
 PDF file, User's Guide on CD 52, 74
 planning optimization 208
 PowerBook 235-236
 PRAM 149
 PRAM, resetting (zapping) 251
 preferences
 accessing 120-121
 Alert 131-133
 custom 120
 Floppy Scan 122-123
 Norton Disk Doctor 155
 Norton FileSaver 66
 Prevention 128-130

- preferences (*continued*)
 - Report 133-135
 - SafeZone 123-125
 - Scan 125-128
 - setting 120-136
 - UnErase 203
 - virus scanning 43
- preventing Norton FileSaver updates 65
- Prevention preferences 128-130
- printing scan report 97-99
- problems
 - found 96
 - solution checklist 18
 - what tools to use 19
- product updates, downloading from
 - Symantec Web site 80
- profiles
 - categories in Speed Disk Profile Editor 218
 - in Speed Disk 215
- program files, updating with LiveUpdate 81
- protection
 - network 289
 - password 138-140
 - unknown viruses 140
 - workstation 289
- protection levels
 - Full protection 44
 - in Norton AntiVirus 43
 - Minimal protection 44
 - no protection 44
 - Standard protection 44

R

- Random Read/Write benchmark 234
- Read Me file 51, 74
- Real Files search option, UnErase 199
- Rebuild Desktop
 - after optimization 217
 - in Norton Disk Doctor 165
- Rebuild Directories, in Volume Recover 171
- Recently Used Files, Speed Disk profile 215
- Recover Files contextual menu command 57
- recovering
 - directories in Volume Recover 171
 - disks, with Volume Recover 168
 - erased files 189
 - file data and resource forks 195
- Rectangles, Round Rectangles and Ovals
 - benchmark 232
- reformatting hard disks 252
- registering your product 48
- rejoining recovered file segments 197
- removing
 - items, from System Info results 227
 - password protection 140
- repair preferences, Norton Disk Doctor 155
- repairing
 - disks
 - automatically, with Norton Disk Doctor 154
 - setting preferences 155
 - with Norton Disk Doctor 162
 - infected file 110
 - response to alert 162, 163
- replacing
 - damaged SCSI disk drivers 250
 - system files 251
- Report preferences 133-135
- reports
 - customizing 133
 - viewing scan history 97
- resource forks
 - File Type scans 195-196
 - recovering 195
 - repairing 163
- responding to virus alerts 107-111
- restarting
 - after installation 41, 43
 - from CD 34, 51
 - to examine disks 17
 - to rebuild a directory 172
 - troubleshooting 34
 - with Startup Disk Control Panel 48
- restoring disks 168-171

Retrospect Express
 installing 257
 optical drive support 259
 quick start 256
 removable drive issues 260
 system requirements 257
 technical support 298

running
 Fast Find, finding lost files 185, 187
 Norton Disk Doctor 153-166
 Norton FileSaver 62
 Speed Disk 211-212
 System Info test suites 229-235
 UnErase 188
 Wipe Info 239-240

S

Sad Mac icon 246

SafeZone, preferences 123-125

SAM. *See* Symantec AntiVirus for Macintosh

saving
 scan report 97
 System Info test results 226

scan history, saving 97

Scan Now hot key 65

Scan preferences 125-128

scan report
 customizing 133
 printing 99

scanning
 disks 93-96
 email attachments 96
 files 93-96
 folders 93-96
 for viruses 36
 history, viewing 97
 network drives 287
 prior to installing 36
 suppress permissions errors 119
 with new virus definitions 147

scans, scheduling 100

scheduled events, LiveUpdate 83-85

scripts, creating to run Norton AntiVirus 285

Scrolling benchmark 232

SCSI devices
 diagnosing conflicts/improper terminations 247-248
 locating by ID number 197
 replacing damaged drivers 250
 wiping 240

Search benchmark 231

searches, types in UnErase 190

Security Wipe 241

selecting
 computers for System Info comparisons 227
 missing disks 71
 System Info testing configurations 225
 UnErase search methods 198

Sequential Read/Write benchmark 234

server, Auto-Protect on 288

Service & Support 291

settings
 LiveUpdate 81
 Norton Disk Doctor 155
 System Info benchmarks 227
 UnErase 203

sharing applications on networks 178

shortcuts, using contextual menus 57

Show Fragmented Files command, Speed Disk 212

Show Info command, Speed Disk 213

signature codes, changing file 186, 187

SimpleText application 52

Sine, Cosine, Tangent, and Arc Tangent benchmark 235

small scanner 58

Software Development Speed Disk profile 215

software, removing before optimization 208

Sort benchmark 230

specifications, anchor, Speed Disk Profile Editor 221

Speed Disk
 advanced options 213
 built-in profiles 215
 consolidating free space 222
 Detail View 213
 disk map 213
 file type identification 213

- Speed Disk (*continued*)
 - FileSaver file update 211
 - fragmented files display 212
 - optimization 207
 - options when finished 223
 - Rebuild Desktop option 217
 - running 209-212
 - Show Info command 213
 - starting from CD 209
 - startup disk optimization 211
 - unmovable file types 214
 - viewing block numbers 213
 - Speed Disk Profile Editor
 - anchor specifications 221
 - match
 - signatures 221
 - specifications 220
 - profile categories 218
 - Speed Disk profiles
 - CD-ROM Mastering 215
 - Disk Resizing 215
 - General Use 215
 - Multimedia 215
 - Recently Used Files 215
 - Software Development 215
 - Speed Disk 3.2 215
 - Spring Cleaning 264
 - uninstalling 265
 - starting
 - applications, from Fast Find 186
 - Fast Find 182
 - Norton AntiVirus 56
 - Norton Disk Doctor 161
 - Norton SystemWorks 56
 - prevent DiskLight from loading 236
 - Speed Disk 209
 - Volume Recover 167
 - Wipe Info 239-240
 - Startup Disk Control Panel 48
 - startup disks
 - damaged, emergency procedures 17
 - defragmenting files on 211-212
 - optimizing 211
 - selecting with Control Panel 48
 - Volume Recover and 168
 - stationery pads 178
 - Superdisk as startup disk 34
 - support, Retrospect Express 298
 - Symantec AntiVirus for Macintosh
 - deleted during installation 31
 - incompatible with Norton AntiVirus virus definitions 31
 - Symantec Security Response 115
 - Symantec Service & Support Web pages 48
 - Symantec Web site
 - connecting with America Online 50
 - downloading product updates 79
 - Late Breaking News 50
 - registration 48
 - Syquest cartridge, wiping 239
 - system
 - configuration, viewing 226-227
 - extension conflicts 248
 - Mac OS
 - damaged 251
 - enabler file 34
 - Norton Disk Doctor tests 157
 - messages 269-273
 - System folder, on CD 51
 - System Info
 - comparing benchmarks 224
 - detailed ratings 228
 - results
 - in System Rating 223
 - list 227
 - test
 - data 228
 - suites 229-235
 - system requirements
 - Retrospect Express 257
 - Spring Cleaning 264
- ## T
- Technical Support
 - Retrospect Express 298
 - Spring Cleaning 295
 - temporary files, deleting before optimization 208
 - Text Search, UnErase 200
 - text, FastFind search 173, 182
 - Tools menu, in Norton Disk Doctor 166

TOPS 287

Trash

- and UnErase file recovery 195
- empty after LiveUpdate session 82
- move files/folders to 186
- Wipe Info 239, 241

Tree benchmark 231

troubleshooting 243-252

- checklist 18
- emergency procedures checklist 17
- external devices 245
- FireWire devices 247
- hardware problems 246-252
- problems after adding new devices 245-252
- procedures 243-252
- USB devices 246
- what tools to use 19

type and creator codes

- changing 186
- searching for 173

U

UnErase

- contextual menu command 57
- Erased Files search 199
- file type vs. filter searches 190
- preferences 203
- Quick Search 189
- Real Files search option 199
- rejoining
 - data and resource forks 195
 - file segments 197
- search results 190
- searching for files/data 195-198
- starting 188
- useless after Wipe Info 237
- Volume Recover and 154, 170

uninstalling Norton SystemWorks

- in Mac OS 8.1-9.x 53
- in Mac OS X 52
- in Mac OS X v10.1 54

Update Now hot key 65

updating

- all files 81
- from Symantec Web site 79
- Norton FileSaver
 - hot key shortcut 65
 - preferences 65
- via scheduled LiveUpdate 84
- virus protection 78

USB devices

- adding to device list 68
- troubleshooting 246
- wiping 239

user instructions 289

User's Guide PDF 52, 74

- opening 75

V

Vector benchmark 235

Verify Data command 223

Verify Media command 223

verifying data accuracy before optimization 223

version numbers

- viewing for products 82
- viewing with LiveUpdate 82

Video test suite

- benchmarks 231
- overview 231

viewing

- disk information, Norton Disk Doctor 172-173
- erased file information 193
- file contents, in Fast Find 185
- folder information, Norton Disk Doctor 173
- latest program update 82
- system configuration 226-227
- System Info
 - suite ratings 226
 - test results 226
- versions and dates 82
- volume information 174

virus definitions

- alternate sources 78
- described 78
- downloading from Symantec Web site 79
- file, finding more recent from CD 35
- updating with LiveUpdate 79

viruses

- alerts 107-111
- checking for 93
- found while scanning 36
- repairing infected file 109
- scanning 35-36
- scanning preferences 43
- unknown 140
- viewing descriptions 115

virus-like activity

- alert 113
- monitoring 140

volume

- allocation block information 174
- header block, Norton Disk Doctor messages 276

Volume Recover

- emergency recovery methods 167
- examine disk after recovery 171
- rebuilding directories 171
- restoring disks 170
- running from Norton Disk Doctor 162, 165
- UnErase and 181

W

Web sites, Symantec 47, 79

When Finished command, in Speed Disk 223

Wipe Entire Device command 238

Wipe Info

- contextual menu command 58
- Security Wipe 241
- Trash 239, 241

wiping

- entire disks 239
- files/folders 239
- unused disk space 239, 240

workstations, protecting 289

Z

zapping PRAM 251

Zip drive

- as startup disk 34
- wiping 239

Norton SystemWorks™ for Macintosh®

CD Replacement Form

CD REPLACEMENT: After your 60-Day Limited Warranty, if your CD becomes unusable, fill out and return 1) this form, 2) your damaged CD, and 3) your payment (see pricing below, add sales tax if applicable), to the address below to receive replacement CD. *DURING THE 60-DAY LIMITED WARRANTY PERIOD, THIS SERVICE IS FREE.* You must be a registered customer in order to receive CD replacements.

FOR CD REPLACEMENT

Please send me: ☐ CD Replacement

Name

Company Name

Street Address (No P.O. Boxes, Please)

City State Zip/Postal Code

Country* Daytime Phone

Software Purchase Date

*This offer limited to U.S., Canada, and Mexico. Outside North America, contact your local Symantec office or distributor.

Briefly describe the problem:

CD Replacement Price \$ 10.00
Sales Tax (See Table) \$ 9.95
Shipping & Handling
TOTAL DUE

SALES TAX TABLE: AZ (5%), CA (7.25%), CO (3%), CT (6%), DC (5.75%), FL (6%), GA (4%), IA (5%), IL (6.25%), IN (5%), KS (4.9%), LA (4%), MA (5%), MD (5%), ME (6%), MI (6%), MN (6.5%), MO (4.225%), NC (6%), NJ (6%), NY (4%), OH (5%), OK (4.5%), PA (6%), SC (5%), TN (6%), TX (6.25%), VA (4.5%), WA (6.5%), WI (5%).
Please add local sales tax (as well as state sales tax) in AZ, CA, FL, GA, MO, NY, OH, OK, SC, TN, TX, WA, WI.

FORM OF PAYMENT ** (CHECK ONE):

☐ Check (Payable to Symantec) Amount Enclosed \$ ☐ Visa ☐ Mastercard ☐ AMEX

Credit Card Number Expires

Name on Card (please print) Signature

**U.S. Dollars. Payment must be made in U.S. dollars drawn on a U.S. bank.

MAIL YOUR CD REPLACEMENT ORDER TO:

Symantec Corporation
Attention: Order Processing
555 International Way
Springfield, OR 97477 (800) 441-7234
Please allow 2-3 weeks for delivery within the U.S.

Symantec and Norton SystemWorks are trademarks of Symantec Corporation.
Other brands and products are trademarks of their respective holder/s.
© 2002 Symantec Corporation. All rights reserved. Printed in the U.S.A.

